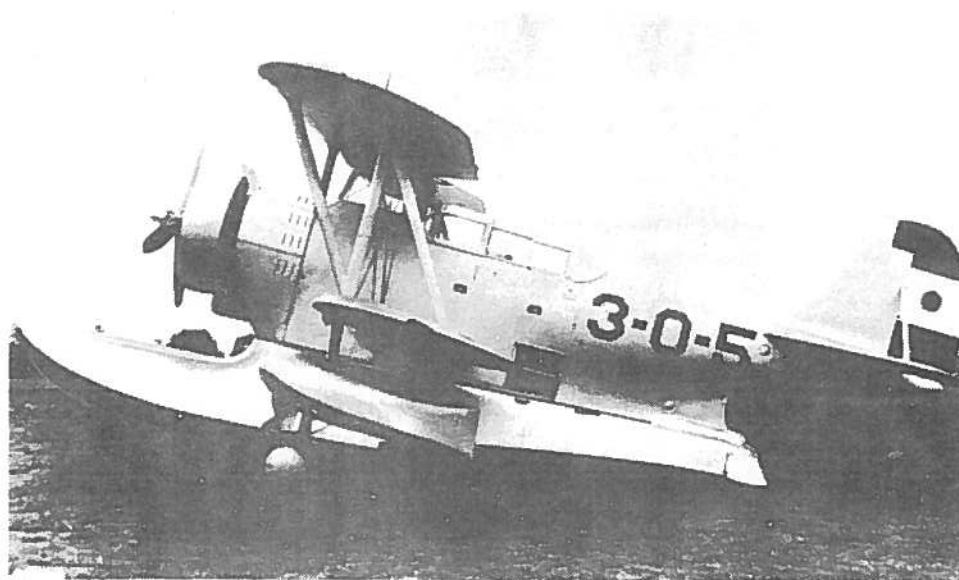


# small air forces observer

US \$2.00



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October 1982

# small air forces observer

the newsletter of the Small Air Forces Clearing House

SAFCH SALES SERVICE: The following are available from the editorial office (27965 Berwick Dr., Carmel, CA 93923). All prices are in US \$ and include surface postage.

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- 6 FAM C-47 Dakota. \$2.00
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- 1 Mexican Air Force B-25J. \$1.75
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- 3 Mexican Navy PBV-5A Catalina. \$1.75

TBU #58 SAMOLOT MYSLIWSKI SPITFIRE Mk I-V, K. Choloniewski. 20 pages 6 1/2 by 9 1/2 inches, 14 photos, 14 color side views, and one color 4-view drawing. Spitfires in Polish Squadrons. \$3.00

SAFO EDITORIAL POLICY: The purpose of the SAFCH is to "promote interest in the history and modeling of the a/c of the smaller countries". In support of this goal, the SAFO will publish articles on all aspects of aviation, both military and civil, from all periods of time and for all the smaller countries. (1) All manuscripts submitted by members will be published in the next available issue of the SAFO. (2) Subscription money will be used only to print and mail the SAFO; there will be no "miscellaneous" column in our budget. And, (3) members are encouraged to sponsor subscriptions for organizations, libraries, individuals (especially those in countries where US funds are difficult to obtain).

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Second-class postage paid at Carmel Valley, CA 93924.

A limited number (one, unless otherwise indicated) of the following are available from the editorial office. (All money collected for the sales of Eastern European kits and books go to send needed material to SAFCH members in these countries.) All prices are in US \$ and include surface postage.

POLISH PROFILES (TBU): RWD-8 (7), Lubin R.XIII (5), TS-8 Bies (2), Il-2, Mi-1 (2), MiG-3 (5), MiG-19 (5), Beaufighter (4), Spitfire (38), Wellington (13), Mustang (11). \$3.00 each.

IPMS AUSTRIA, PANORAMA 4/81 (SAAB 91 issue) \$3.00.

VIRUS PLASTICUS 1/82 & 2/82 (Swiss Venom & list of vacuform kits) \$2.00 each.

MILITARY JOURNAL #11 ("Fokker DR.1 Lt. Paul Baumer", "Paris Air Show '79") \$2.00.

AIR PICTORIAL Jan. '68 ("RNZAF", "Portuguese AF serials") \$2.00.

JP 4 May '78 ("Corea 1950 E l'Aiuto Venne dal Cielo", "Plastimodellismo - Fiat G.91") \$2.00.

MALLARI (IPMS-Finland) #38, #39-40, #41 (see abstracts) \$1.00 each for single issues and \$2.00 for double issue.

MODELLERS' MONTHLY (Plastic Modellers Society, Singapore) Mar 82, Apr 82, & Jul 82. \$1.00 each.

L+K 6 '78 ("Monografie S-199 & CS-199" 3-views and color drawings; "CAGI SK/SK-2" 3-view drawing) \$2.00.

RT July '77 ("Gooney Bird Sketchbook", "Canadian Military Aircraft - Part 14 Avro Anson I") \$2.00

PLANY MODELARSKIE: PZL P-37 Los. Plans for 1/15-scale control-line model. \$5.00.

MIKRO KITS: (1/72) Jak-1M and LWS Czapla \$5.00 each.

RUCH KITS: MiG-15 \$4.00

USSR KITS: (1/100) Il-18 \$10.00.

DECALS (REVELL-BRAZIL): Varig DC-10, Cruzeiro B.727, Varig Super Constellation. \$0.50 each.

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COVER COMMENTS: South American Grummans - Argentine G-15 Duck '3-O-5'. See page 13. (Archivo de Pucara) Uruguayan S-2 Tracker 'A-853' at Laguna del Sauce. See page 5. (Rolando Grasso Alfaro via Jorge F. Nunez)

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## AUSTRALIA

APMA (Australian Plastic Modeller's Association, PO Box 51, Strathfield, N.S.W. 2135)

2 82 (24 pages) "Bay of Pigs: The Aircraft" 3 pages including side-view drawings of P-51D "401", PBV-5A "HP-289", Invaders "FAR 933" & "FAR 917", and Sea Fury "541" (see SAFO #23). "Four Norsemen" 2 pages including 4 side view drawings (VH-ASN, VH-BNE, A71-7, & A71-10). "Fearless Fred" Queen Bee operated from HMAS AUSTRALIA.

## AUSTRIA

OFH NACHRICHTEN (Oesterreichische Flugzug Historiker, Kannwegasse 1/15, A-1150, Wien)

2/82 (32 pages) "Dusentrainer De Havilland 'Vampire'" 14 pages including 11 photos and 6 pages of 1/72-scale drawings. "Doppeldecker Berg D I" 3 pages including 2 photos and a one-page, 1/72-scale drawings of "A36". "Segelflugzeug Kranich II" 5 pages including 2 pages of 5-view 1/72-scale drawings of "OE-0162".

PANORAMA (IPMS/AUSTRIA, Nordmanngasse 11-13/4/6, A-1210 Wien)

Nothing received since 5-6 81

## BELGIUM

KIT (IPMS Belgium, Rue des Eburons 35, 1040 Bruxelles; 4 issues for 400 Belgian francs.)

#45 (32 pages) "Israeli Air Force - Part 1" 14 pages including 6 photos and drawings of Spitfire (3), C-210 Mezec (2), Lodestar, Beaufighter, Anson, Mosquito, C-46, B-17G, Mustang (4), C-47 (2). "Belgian Alouette III" 4 pages including 8 photos and two pages of drawings (Belgische Zeemacht/Force Navale Belge and Civiele Bescherming/Protection Civile).

## BRAZIL

SOUTH AMERICAN AVIATION NEWS (Caixa Postal 5216, 09720 Rudge Ramos, Sao Paulo; 6 issues for \$7.00; back issues US \$2.00 each.)

Nothing received since #31.

## CANADA

HIGH FLIGHT (Box 393, Stittsville, Ontario K0A 3G0; 6 issues for CAN \$15)

4/5 '82 (36 pages) "Chronology 1927" 8 photos of Fokker Universal, DH Moth, Avro 504K, Canadian Vikings Vedette, Vanessa, & Vista. "The RCAF in 1927" 5 pages including photos of Avro 504N, Fokker Universal, & A-W Atlas. "405 and the Merlin Wimpy" 11 pages including tables of a/c histories and squadron operations, 13 photos, and 3 pages of drawings. "Prestwick Panorama II" 19 photos of RCAF a/c at Prestwick, Scotland in the early 1960s. "The Years of the Siskin: The Story of No. 1/401 Fighter Squadron - Part One" 9 pages including 24 photos.

RANDOM THOUGHTS (IPMS CANADA, Box 626, Stn. B, Ottawa, Ontario K1P 5R7; 6 issues for \$12.00 in US, \$13.00 others)

1/82 ((24 pages) "Down and Out in Warsaw" discussion of modeling in pre-martial law Poland. "CF-116 in Experimental Camouflage" 4-view drawings of 2 a/c.

## ENGLAND

MAGAZINE (IPMS ENGLAND, Flat 4, 18 Delancey St., London NW1 7NH; 6 issues for US \$20.00 + \$1.00 joining fee)

3/4 82 (28 pages) "Cabadaire Sabre 6 - IDFAF" 2-view drawing of 6032 in Israeli markings. (A photo of another Sabre in Israeli markings appears in JP-4 Dec. 1981.) "Super SAAB Part 3 - SAAB 37 Viggen" 6 pages including 14 photos and 3 pages of 1/72-scale drawings of AJ37, SF37, & SH37.

4/5 82 (28 pages) "Super SAAB Part 4 - SAAB 37 Viggen" 7 pages including 9 photos and 3 pages of drawings (SK37, JA36, & AJ37 camouflage scheme).

MILITARY AVIATION REVIEW (East Cliff, Stotfield Rd., Lossiemouth, Moray IV31 6QT, Scotland; 6 issues for £10.20)

6/7 82 (48 pages) Photos: Norway Mystere 20 '053'; Spain F-4C 'C12-018/122-04' & 'C12-27/121-14', SF-5A 'A9-046/212-46', RF-5A 'AR-056/212-56', CASA-101 'E25-33/412-25', T-33A 'E15-43/41-15', Mirage IIIEE 'C11-22/111-12', & AV-8A '008-6'; Lebanon Prentice 'LR105' & Vampire FB.5 'L158'; Argentina Prentice 'G-23-4'; Iraq Fury '254', Provost '382', and AN-12 '805' & '505'; Burma Provost 'UB201'; Pakistan Tempest 'A129' & Bristol 170 'S4413/N'; Iran C-130E '5-113'; India Ouragan & Sealard; Meteor FR.9 Ecuador '712', Denmark T.7's 261/2/3', Egypt F.4 '1401' & T.7 '1400'; Israel F.8 '2176'; Brazil F.8's '4427' & '4401', T.7 '4304', and Dutch T.7 'I-19'. "MFG-3" 2 pages including a/c list and photos of Gannet 'UA+107' & 'UA+99', Atlantic '61+07'(2). "The Royal Australian AF Revisited" 6 pages including 9 photos.

## FINLAND

MALLARI (IPMS FINLAND, PL 798, 00101 Helsinki 10; issues #41-44 US \$6.50, add \$1.00 for airmail and \$1.50 for personal bank cheque redemption)

#38 (8 pages) "Yak 23" 6 pages including 11 photos and 2 pages of drawings of Polish, Czechoslovakian, Romanian, & Bulgarian aircraft. "Fokker F.VIIa" 2 pages including 3 photos and 2 side-view drawings of aircraft c/n 4990 in Danish (OY-DEV) and Finnish (FE-2) markings.

#39/40 (16 pages) "Finnish Civil Fokker F.27" 7 pages including 14 photos and 4 side-view drawings. "SAAB-91 Safir" 8 pages including 15 photos and 17 side-view drawings (10 Finnish, 4 Swedish, 2 Austrian, & one Japanese aircraft).

#41 (8 pages) "Finnish Air Force Fokker F.27" 6 pages including 13 photos, drawings (port, starboard, & top views) of FF-1, and a side-view drawing of FF-2.

## FRANCE

LA VITRINE DU MAQUETTISTE (IPMS FRANCE, 3 rue de l'Amiral Roussin 75015 Paris; 4 issues 60FF surface, 80FF air; back issues 12FF; "La Lettre de l'IPMS" 25FF.)

#15 (36 pages - new 21 by 30 cm size) "Teintes Officielles Francaises 1954" 6 pages including 10 photos and table of color equivalents (FS & BS) with Humbrol mixes.

## GERMANY

MITTEILUNGEN (IPMS GERMANY, Oertzenweg 12b, 1000 Berlin 37; DM 42.00 Europe, DM 49.00 USA, DM 55.00 Japan, DM 61.00 Australia)

7-82 (30 pages) "Oertz Flugboot W 5 (1915)" 3 pages including 1/72-scale, 3-view drawings. "Heinkel Flugzeuge und Projekte 1911 bis 1962" 9 pages of tables listing a aircraft types and subtypes designed by Heinkel while with Albatros, Hansa Brandenburg, Casper, and his own firm.

8-82 (30 pages) "Klemm 35" 4 pages (mostly drawings) including Swedish a/c. Photos: Oertz Flugboot W 5, Columbian AF Junkers W 34.

9-82 (30 pages) Nothing of small air forces interest.

## ITALY

IL NOTIZIARIO (IPMS ITALY, CP 182, 41100 Modena Ferrovial)

1 82 (32 pages) "Thunderjet" 13 pages including 17 photos and 14 side-view drawings (all of Italian a/c). (Editor's note: Several of the photos show the a/c being refueled and rearmed and would make interesting model subjects. Could IPMS-ITALY be persuaded to publish drawings of their indigenous air-field equipment? The same plea goes out to all other IPMS branches.)

JP-4 (CP 1550, 50100 Firenze)

4 82 (88 pages) Photos: Iraq Jetstar 2 YI-AKB, Saudi Arabia Lear Jet 35 HZ-ABM, Kiribati CASA C.212 T3-ATC, Zaire DHC-5D Buffalo 9T-CBA (color), Tunisia SF.260 W41-403/TS-TBC (color), Turkey CW-22. "Aeroplani Tedeschi in Russia" 3 pages including photos of FW 109A, Bf 109G-

2/R6, He 111H, Ju 52, Me 262, Ju 252. "Caudron G-3 di Pocher" kit review with color two-view. 5 82 (100 pages) Photos: Iran B.747, Libya IL-76 '5A-DNJ', Iraq IL-76 'YI-AIM', Egypt C-130H '1278', New Guinea DHC Dash 7 'P2-ANN', Panama CASA C.212 'FAP 215', Canada Challenger 'C-BEY'. "Falkland - Un Solo Sconfitto l'Occidente" 9 pages including Argentine air O/B, daily report (29 Mar-11 May), and photos of Skyhawk '3-A-309' and Super-etandard '3-A-204' (color). "Prefectura Naval Argentina" 2 pages including photos of Bell-47J 'PA-22', Goose "PGM-1", Hughes 500 'PA-35', Puma 'PA-11' (color), & Skyvan "PA-52" (color). "Gli Idrovolanti Macchi nella Aviazione Naval Argentina" 3 pages including 2 photos of Macchi M-9. "Yakovlev Yak-23 Flora" modeling article with color side-view drawings of Polish, Czech, & Rumanian a/c.

#### NEW ZEALAND

SCALE DIMENSIONS (IPMS NEW ZEALAND, 72 Walworth Ave., Pakuranga, Auckland)  
Nothing received since April '81.

#### NORWAY

LIMTUBEN (IPMS NORWAY, c/o K. Haugen-Nes, Postboks 273, 2050 Jessheim, NORWAY; 4 issues for \$9.00.)  
Nothing received since 1 '81.

#### SOUTH AFRICA

AFRICAN AIR REVIEW (AVIATION SOCIETY OF AFRICA, PO Box 1413, Alberton 1450; 6 issues for US \$12.00)

Jan/Feb 82 (20 pages) Photo: Libyan Arab Air Force CH-47 'LC-020'. "Aircraft of the SAAF: the DH 9 (Part 2) one page of text. "African Air Forces: Kenya(1)" one page listing serials, etc. for Chipmunks (9 a/c), Beavers (KAF101-111), Caribous (KAF201-206), Strikemasters (KAF601-606), & Bulldogs (KAF701-714).

Mar/Apr 82 (20 pages) Photos: SAAF Wasp '95', Alouette III '51', Super Frelon, Shackleton '1716', Dakota, Mirage F1CZ, Harvard '7662'. "African Air Forces - Kenya(2)" 2 pages including list of Hunter (KAF801-806), DHC-5D Buffalo (KAF207-212), Do 28D Sky servants (KAF112-119), F-5E/F (KAF901-914), Hawk Mk52 (KAF1001-1012), Aero Commander 680F (KAF301-303), SA342J Gazelles, SA330H Puma (KAF403-406), Hughes 500C/TOW (KAF501, KAF527-532), Provost (KAF969). "Military Aircraft - The Hawker Hunter" one page with serial lists for Zimbabwe and Kenya. "Aircraft of the SAAF: The DH 4" one page history.

#### SWITZERLAND

VIRUS PLASTICUS (IPMS SWITZERLAND, Olivenstr. 2, 9320, Arborn; 4 issues for Sfr 24)

2 82 (40 pages) "Welche Vaku-Modelle Gibt Es? (Teil 1)" 9 page list of all vacuum a/c kits in 1/72, 1/100, & 1/144 scale. "Le Venom en Maquette" 5 pages including 1/72-scale drawings and drawings of ejection seat.

#### USA

WWI AERO (Leonard Opdycke, 15 Crescent Rd., Poughkeepsie, NY 12601; 5 issues \$15)

7 82 (82 pages) "De Havilland 4" 29 pages including 50 photos. "The Manufacture of Rotary Engines" 8 pages including photo and cut-a-way drawing of 100 HP Gnome Monosoupape and scale drawing of 110 HP Le Rhone.

DIRTY PLASTIC (IPMS PHOENIX, 509 W. Camino Dr., Phoenix, AZ 85021; 4 issues for \$6.00.)

Summer 1982 (20 pages) "Fokker DXXI" 9 pages including 10 side-view drawings, a page of drawings detailing differences between versions, a brief history of the origin and development of the type, and a comprehensive review of the Frog/AirLines/Novo kit with details for conversion to the various subtypes. "F-86D/L/K" 6 pages of side-view drawings (China, Denmark, Japan, S. Korea, Philippines, Turkey, Greece, Yugoslavia, Thailand, France, W. Germany, Italy, Netherlands, Norway, and Venezuela.

#### DE VLIEGENDE HOLLANDER

Jan 82: Photos: RNethAF F-16B 'J-263' (color); Spanish AF SF-5B 'AE9-001' (color), CASA 101 'E25-03' (color), Swiss Hunter 'J-4079'.

Feb, Mar, & Apr 82: Nothing of small air force interest.

May 82: Photos: RNethAF NF-5A 'K-3068' (color) & F-84F 'P-177' in a farewell color scheme that has to be seen to be believed (color); Irish CM-170 '215' (color) & C.172H '203' (color); and RNethAF Douglas 8A '390'.

Jun 82: Photos: RNethAF Alouette III 'A-307' (color), ex-RNethAF F-104G 'D-8110' & TF-104G 'D-5816' on delivery to Turkey (color), and Egyptian MiG-21MF '8692' (color) & Shenyang F-6 '3802' (color).

Jul 82: Nothing of small air force interest.

#### BRITISH AVIATION REVIEW

Dec 81: Bits and pieces but nothing of particular small air force interest.

Jan 82: A complete survey of the serials for Italian F-104G's (well worth reading). ROUNDEL has reached WL876 to WN500.

Feb 82: Photo of Uruguayan CASA 212 '534'.

Mar 82: Survey (serials) of the Open Day at SAAF Ysterplaat. ROUNDEL has reached WN506 to WS848.

Apr 82: Photo of Zimbabwe AF C-47 '7310' & BN2A '7319'. Bits and pieces of interesting information.

May 82: Survey (serials) of Belgian AF Anson, Dominie, Mosquito, Meteor F8, & CM-170. ROUNDEL has reached WS960 to WV766.

Jun 82: Photos: Panama CASA 212 'FAP 215' & RDAF F-16A 'E-200'. Bits and pieces of interesting information.

Jul 82: Survey (serials) of exotic military visitors to Miami. Photos of SAAF C-47 '6877', Kudu '994', & Mirage F1CZ '203'.

Compiled by Ben Marselis (SAFCH #143), PO Box 5065, 2701 GB Zoetermeer, NETHERLANDS

#### AIR INTERNATIONAL

Egypt: "An Air Power in Transition", Vol. 22, No. 4, 5, & 6.

Ireland: "Eire's Expanding Air Force", Vol. 22, No. 3.

Japan: "Shin Meiwa US-1 - Epitaph for the Big Boats?", Vol. 22, No. 2.

"HELP WANTED: I have just finished working on an US-AIRFIX Lancaster B Mk.I and there is an annoying problem; the instruction sheet fails to identify the a/c depicted by the decals. Could any SAFCH reader help by identifying the squadron to which a/c IQ-Q, P8815/G belonged?"

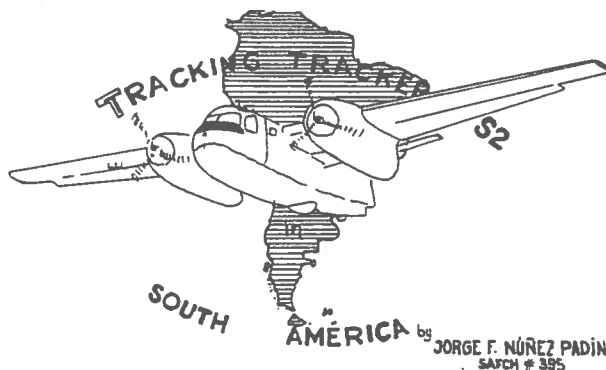
Tot Scott (SAFCH #403), 168 59th Ave., Chomedey, Laval PQ CANADA H7V 2B8

AIR INTERNATIONAL INDEX: Vols. 1-21 (June 71 to Dec 81). George Sholl (SAFCH #423) has used a personal computer to compose a list of all small air force subjects that appear in one of the most beloved commercial aviation magazines. This 34-page list allows entry by either nation or aircraft as well as by issue. Each volume is indexed separately so if you want to find a particular country or aircraft you will have to look through 21 different entries. But, that's a lot easier than trying to thumb through 126 different issues.

If you have AI but failed to index it as it arrived, this list will help you find that half remembered article or photo. If you are missing some issues, this list can help you decide which back issues you really need. George would like to make this list available to SAFCH readers for a nominal cost. If you are interested, write directly to George Sholl, PO Box 3738, Greenville, NC 27834.

"I need information on the air force insignia for the following countries: Brunei (1966 version), PR Kampuchea, Cypress, Comores, Congo (US type), Dubai (all 5 types), Guinea Bissau, PR Laos, Lesotho, Liberia, Malawi (details of center), Mozambique, Sierra-Leone, Swaziland, United Arab Emirates (central design), PR Viet-Nam (South).

Jean Rouze (SAFCH #605), 37 Rue de Puebla, 59800 Lille, FRANCE



The following Latin American air arms have used the Grumman S-2 Tracker: Aviacion Naval Argentina, Forca Aerea Brasileira, Servicio Aeronaval del Peru, Aviacion Naval Uruguay, and Aviacion Naval Venezolana. Trackers remain in service in all of these countries, operating mainly in the antisubmarine warfare role but slowly being transferred to second-line duties.

#### BRAZIL

Although the Marinha Brasileira was the first Latin American navy to operate an aircraft carrier (the Minas Gerais, bought in 1956 and put into service after extensive modernization in December 1960), the Navy is forbidden to operate aircraft. Therefore, when Brazil became the first Latin American country to receive the Grumman S-2 Tracker, these aircraft were operated by the Air Force.

The 1º Grupo Aviacao Embarcada (1st Embarked Aviation Group) of the Comando Maritimo (Maritime Command) operated all the Trackers delivered to Brazil. This unit, based at Base Aerea Santa Cruz, also takes part in joint manoeuvres with the Navy operating their Trackers from the carrier Minas Gerais. The Brazilians operate the Tracker mainly in the antisubmarine role, but it is believed that some of the older models are now used for conversion training, liaison, and other second-line duties.

The exact number of S-2A delivered to Brazil is unknown; some source report 13 S-2A and 8 S-2E. The Brazilian Air Force Trackers are coded P-16, and the following subtypes are known: P-16A for the S-2A, UP-16 for the S-2A in secondary roles, and P-16E for the S-2E.

#### Serials:

P-16A - FAB 7014 to 7026 (13 planes), at least 7 are still active, plus two serving as UP-16 (one of these is FAB 7024).

P-16E - FAB 7030 to 7037 (8 planes), all operative?

With 21 S-2A/E, the Forca Aerea Brasileira is the largest operator of Trackers in Latin America.

#### ARGENTINA

The first Latin American naval air arm to put the S-2 into service was the Argentine Navy. In 1961, the Aviacion Naval Argentina bought six S-2A trackers to equip an ASW unit for operation from an aircraft carrier. A group of pilots and crewmen, lead by Capitan de Corbeta Buteler, undertook conversion training in 1961, flying with the US Navy's VT-27 and operating from the USN Randolph and the RCN Bonaventure.

On 24 May 1962, six S-2A Trackers arrived at Base Naval Puerto Belgrano aboard the Argentine carrier ARA Independencia. The Trackers were first stationed at Base Naval Punta Indio, but were soon transferred Base Naval Comandante Espora. The unit operating the S-2A was the Escuadrilla Aeronaval Antisubmarina. In June 1967, an additional Tracker, an S-2F, was received; and late in 1978, six new S-2E Trackers were added to the inventory. For a short time, the Escuadrilla Aeronaval Antisubmarina flew both S-2A and S-2E, but by 1980 all the S-2A were transferred to the Escuadrilla Aeronaval de Propositos Generales (General Purpose Squadron) under the command of the 6º Escuadra Aeronaval (6th Naval Air Wing).

The S-2E operate from the aircraft carrier ARA 25 de Mayo, protecting the fleet against submarines. The current tasks of the S-2A include liaison, COD, coastal patrol, and armed reconn.

Serials: S-2A 3-AS-1 to 3-AS-6, then 2-AS-1 to 2-AS-6, now 6-G-51 to 6-G-54 (at least).

S-2F 2-AS-7 (destroyed by fire, w/o September 1976).

S-2E 0700/2-AS-21 to 0705/2-AS-26.

During 21 years of continuous service, the Argentine S-2 were never involved in a serious accident. Except for 2-AS-7, which was lost during overhaul, all Argentine S-2 remain in active service.

#### PERU

The Servicio Aeronaval del Peru recieved (date unknown) nine S-2G Trackers in ASW and maritime reconnaissance roles. These aircraft, operated from Jorge Chavez Airport, are the backbone of Peru's ASW force, only recently being complimented by two F-27 Maritime. It is known that not all the S-2G are operational, most likely because of a lack of trained aircrews.

#### Serials:

AA 540 to 548. Known USN tie-ups are - 540 (152831), 543 (152340), 545 (152357), 546 (152332), 548 (152369).

#### URUGUAY

After Brazil and Argentina, Uruguay was the next country to receive Trackers. On 11 December 1964, at North Island, three S-2A were handed over to 28 Uruguayans (13 officers and 15 petty officers). The 3 Trackers arrived at Capitan Curbelo NAS (Laguna del Sauce) on 12 May 1965 with two USN C-54 for logistic support and transport of spare parts. In 1981, the Uruguayan Naval Air Arm received three S-2G.

Uruguayan Trackers take part in joint manoeuvres with the Argentine S-2, operating from the aircraft carrier ARA 25 de Mayo.

#### Serials:

A-851 (133215), A-852 (133239), A-853 (133262).

#### VENEZUELA

Very little is known about the Venezuelan Trackers. Seven S-2E were delivered to the Aviacion Naval Venezolana where they form the only AWS unit in this country.

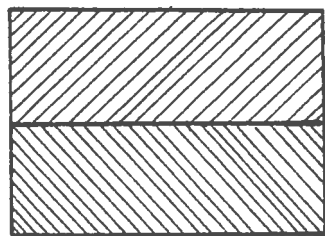
#### Serials:

AS-101 to AS-107. The first 3 are known to be USN 150603, 149867, & 149878.

Readers with additional information (particularly on the Venezuelan and Peruvian S-2), photos (particularly of the Uruguayan S-2G), etc. please contact the author. All information received will be published in a second article.

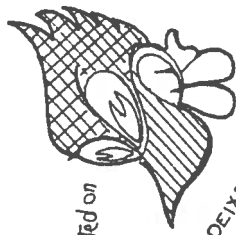
SOURCES: I wish to express my thanks to the following: Jose Luis Gonzalez Serrano, Ben Marselis, Bram Risseuw, and Carlos Fortner.

Jorge Felix Nunez (SAFCH #395), Humboldt 2763/65, 8000 Bahia Blanca, ARGENTINA



# FORÇA AÉREA BRASILEIRA

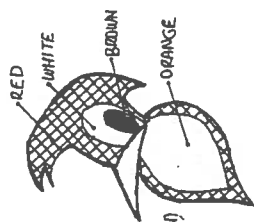
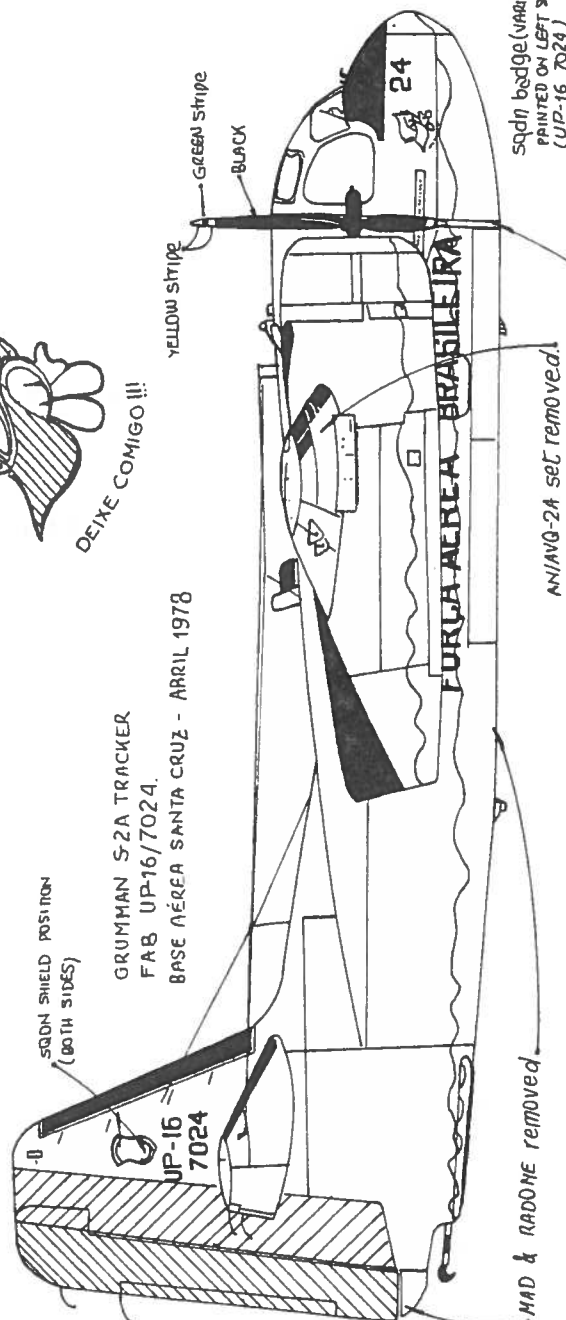
GRUPO AÉREO EMBARCADO



Squad badge painted on  
RIGHT SIDE

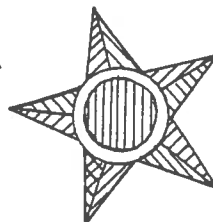
DEIXE COMIGO!!!

GRUMMAN S-2A TRACKER  
FAB UP-16/7024  
BASE AÉREA SANTA CRUZ - APRIL 1978

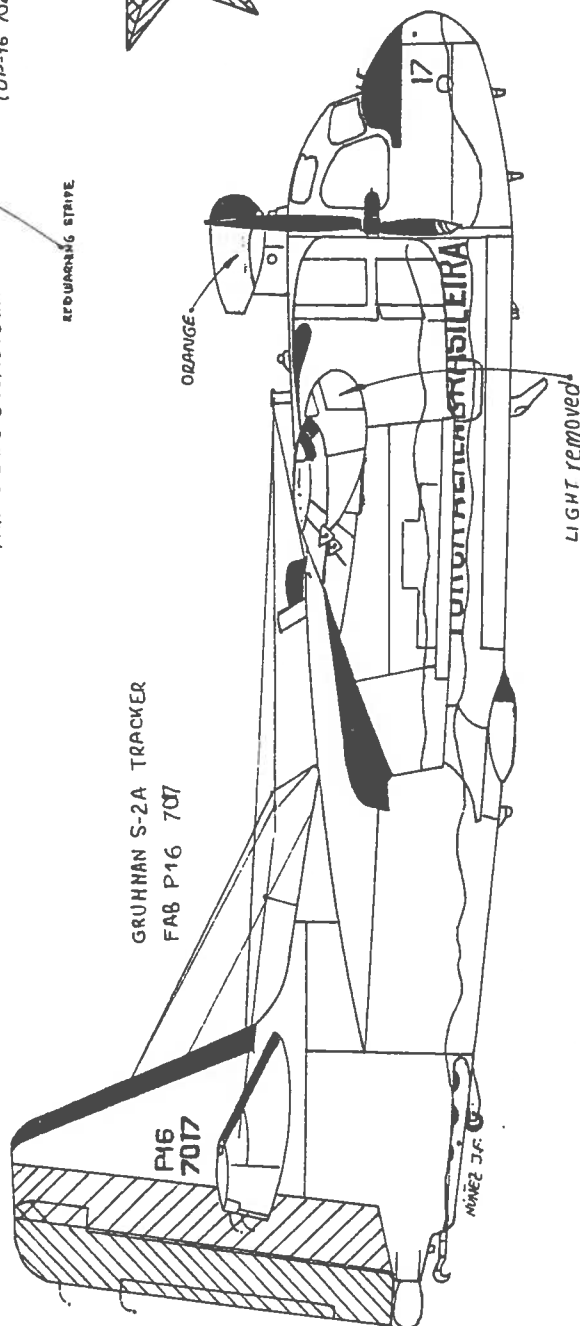


RED  
WHITE  
BROWN  
ORANGE

Squad badge (variation)  
PRINTED ON LEFT SIDE  
(UP-16 7024)

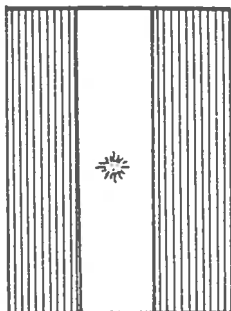


NATIONAL  
INSIGNIA

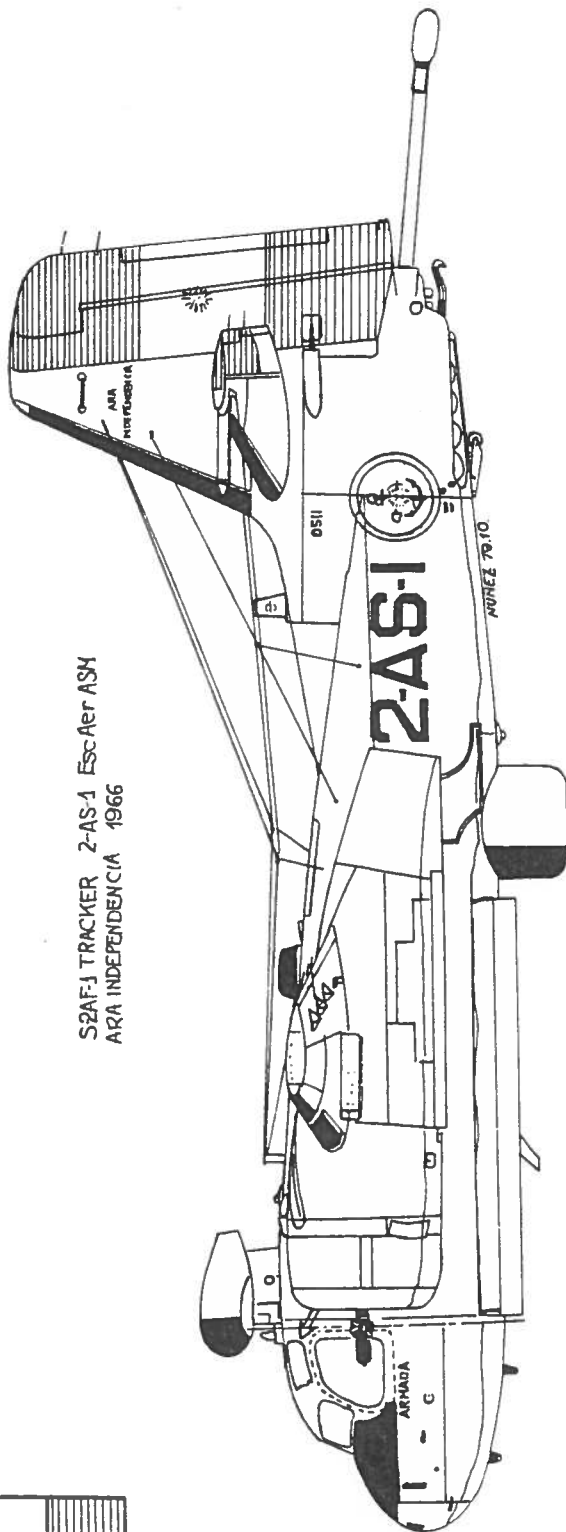


GRUMMAN S-2A TRACKER  
FAB P16 7017

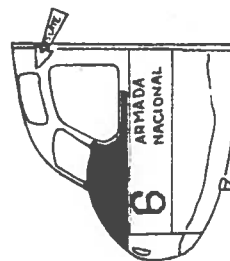
LIGHT removed



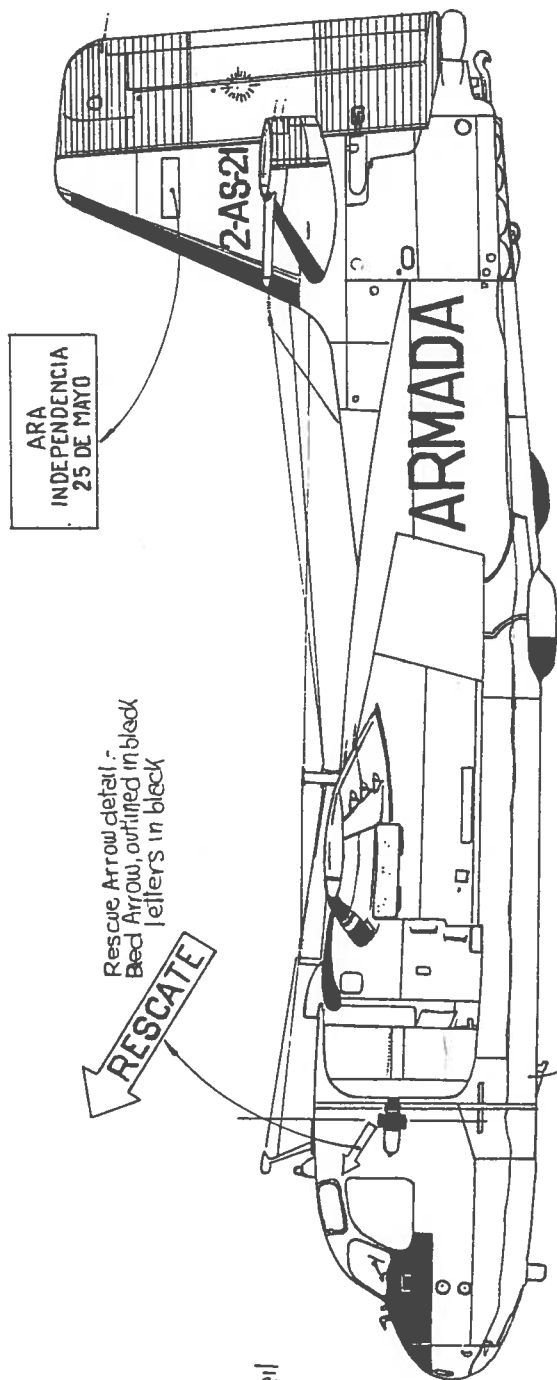
# AVIACION NAVAL ARGENTINA



S2AF-1 TRACKER 2-AS-1 Esc Aeronav ASM  
ARA INDEPENDENCIA 1966



S2AF-1 TRACKER 2-AS-6 detail  
Nose markings variant



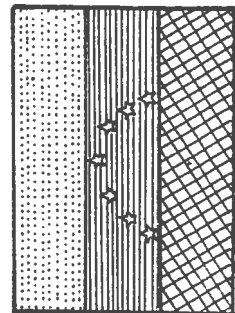
ARA  
INDEPENDENCIA  
25 DE MAYO

Rescue Arrow detail -  
Bed Arrow, outlined in black  
letters in black

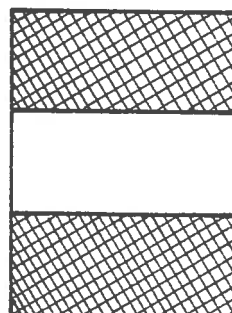
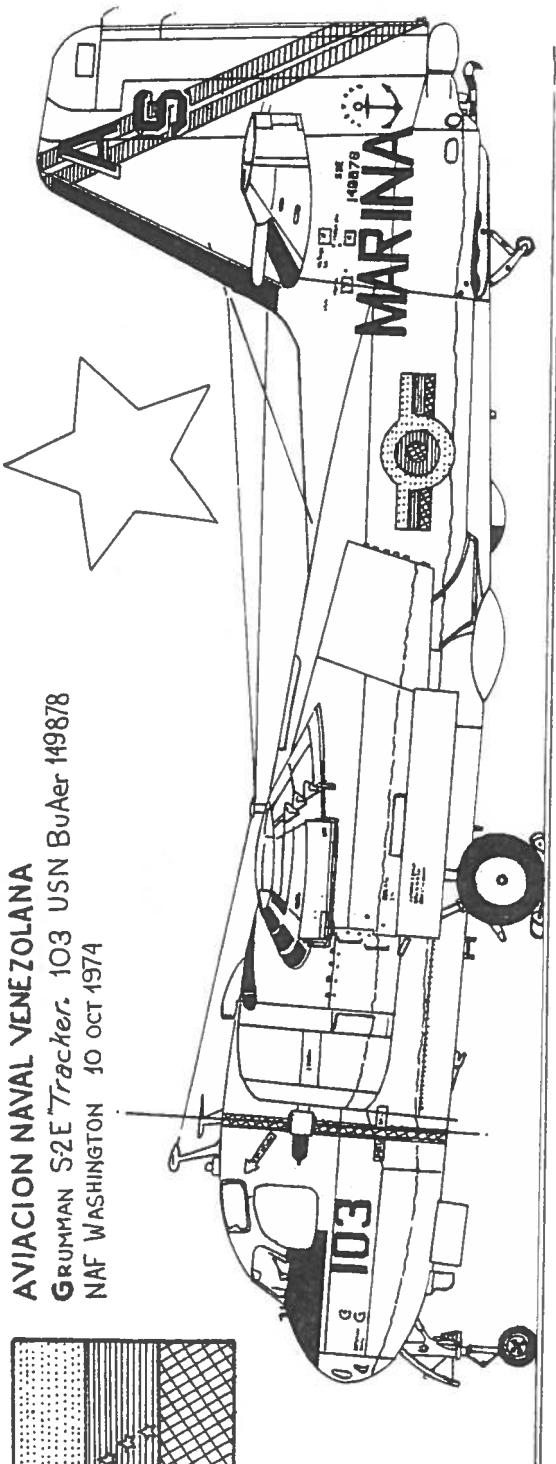
RESCATE

S-2E TRACKER 2-AS-21 Esc Aeronav ASM  
Cte ESPORA NMB MAY 1979

Danger Propeller  
Red letters (U.S. only)  
CUIDADO  
HELICE



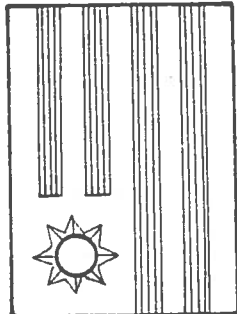
AVIACION NAVAL VENEZOLANA  
 GRUMMAN S2E Tracker. 103 USN BuAer 149878  
 NAF WASHINGTON 10 OCT 1974



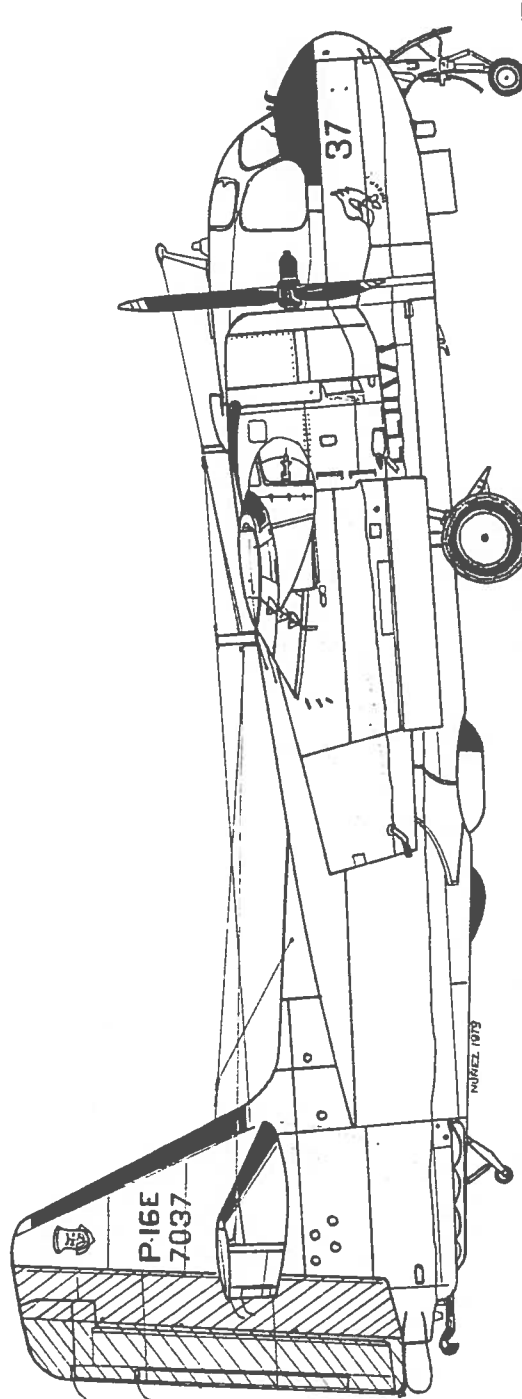
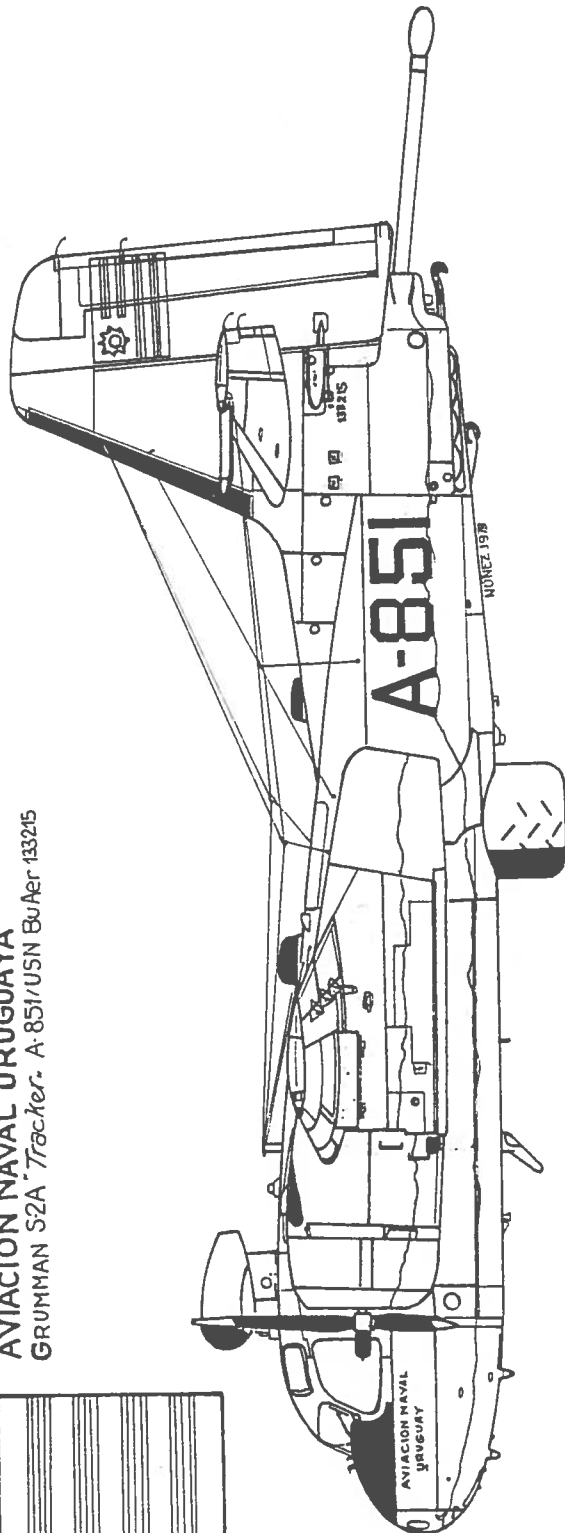
SERVICIO AERONAVAL DEL PERÚ  
 GRUMMAN S2G Tracker. AA 540/USN BuAer 452831







AVIACION NAVAL URUGUAYA  
GRUMMAN S2A Tracker. A-851/USN BuAer 133215

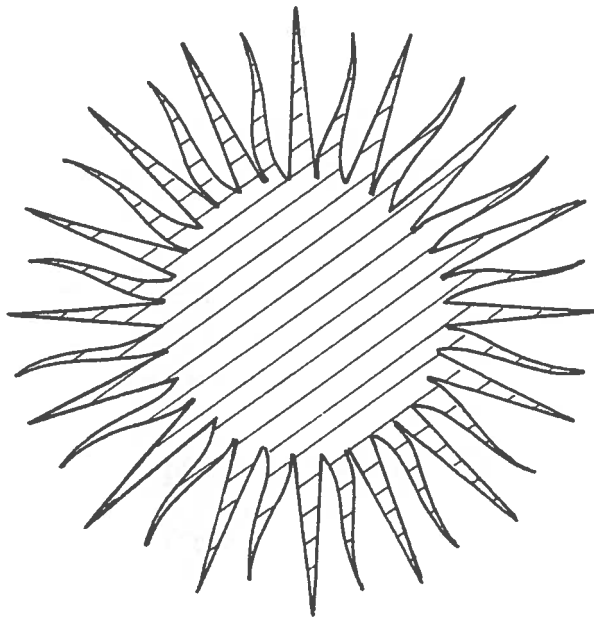
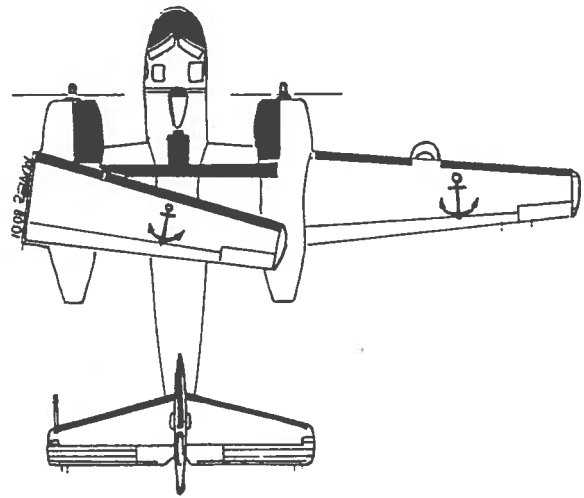


GRUMMAN S2E TRACKER FORÇA AÉREA BRASILEIRA  
FAB P-16E / 7037  
BASE AÉREA SANTA CRUZ FEBRUARY 1977

S2 TRACKER Upper View  
Argentine Navy Standard Configuration



Anchor Type : on S2E



GOLDEN YELLOW SUN



Anchor Type - on S-2AF1/F



WHITE FS17875



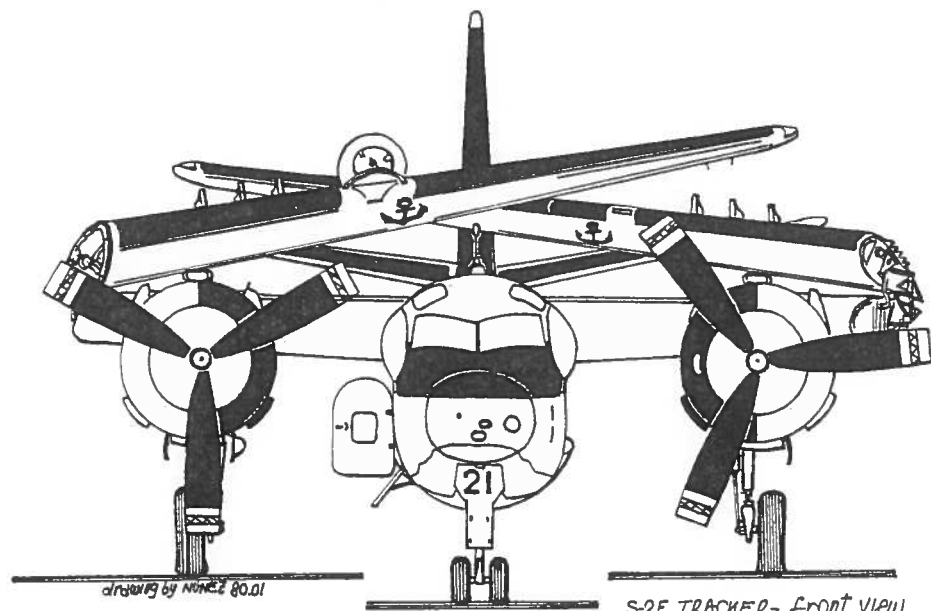
SEA GULL GREY  
FS 36440



SKY BLUE

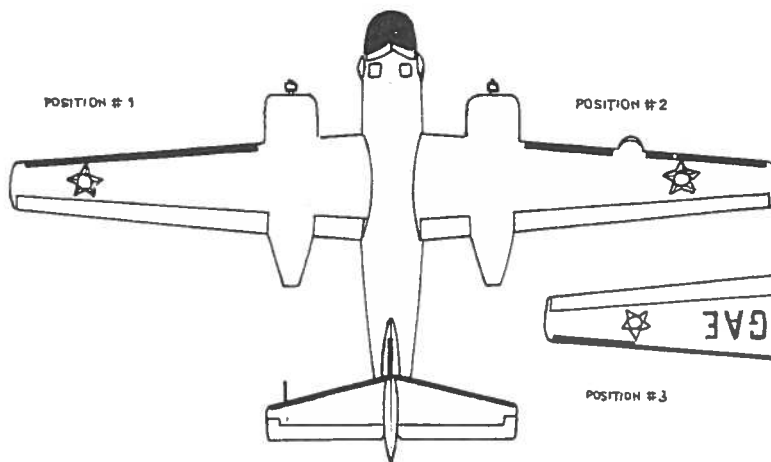


MATT BLACK

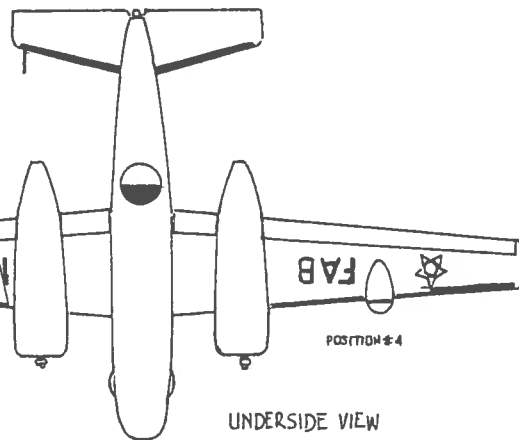


S-2E TRACKER - front view.

# PLAN VIEW

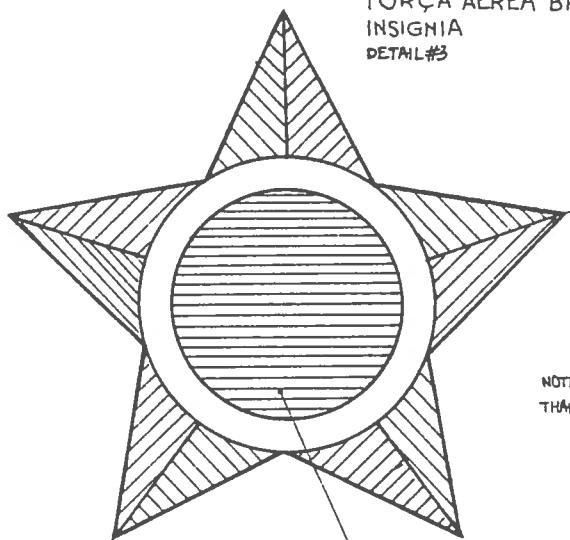


BRASILIAN AF's CONFIGURATION



UNDERSIDE VIEW

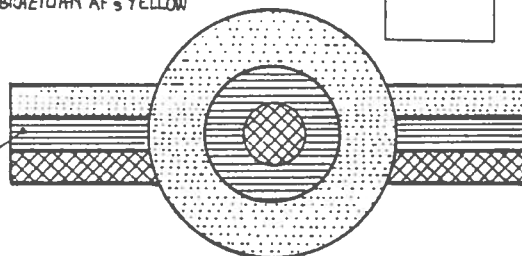
## FORÇA AÉREA BRASILEIRA INSIGNIA DETAIL #3



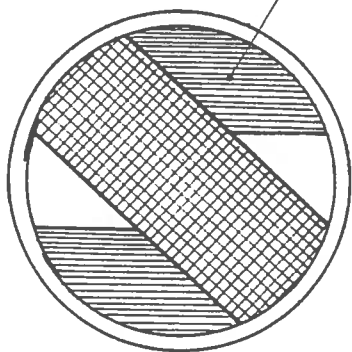
NOTE: THE VENEZUELAN YELLOW IS LIGHTER  
THAN THE BRAZILIAN AF's YELLOW

LIGHT BLUE

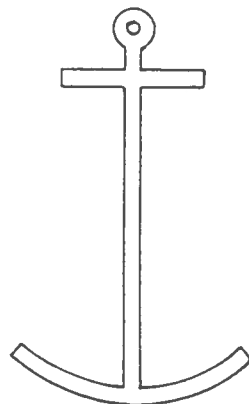
DARK BLUE



AVIACION NAVAL VENEZOLANA INSIGNIA  
DETAIL #4



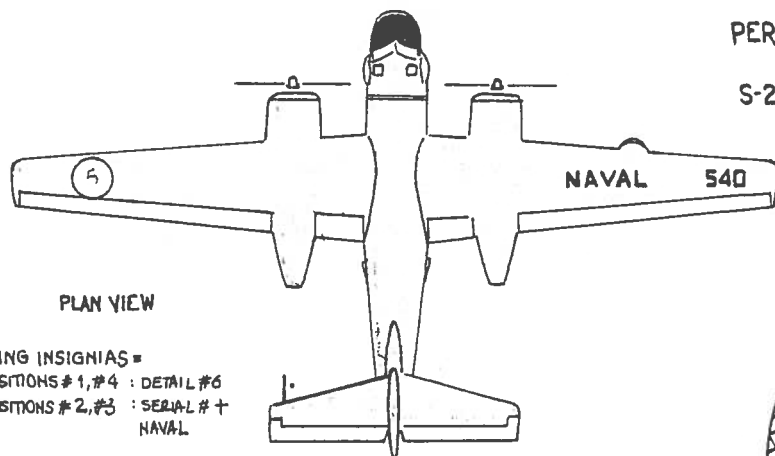
AVIACION NAVAL URUGUAYA INSIGNIAS  
DETAIL #5



WHITE ANCHOR, BLACK OUTLINED  
ROUNDEL INSIGNIA W/WHITE BORDER

# PERUVIAN NAVY's CONFIGURATION

S-2G

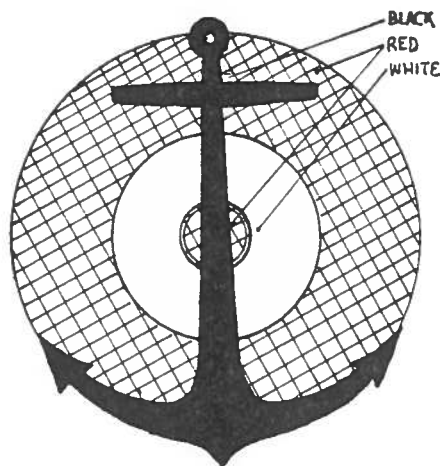


PLAN VIEW

WING INSIGNIAS =  
POSITIONS #1, #4 : DETAIL #6  
POSITIONS #2, #3 : SERIAL # +  
NAVAL

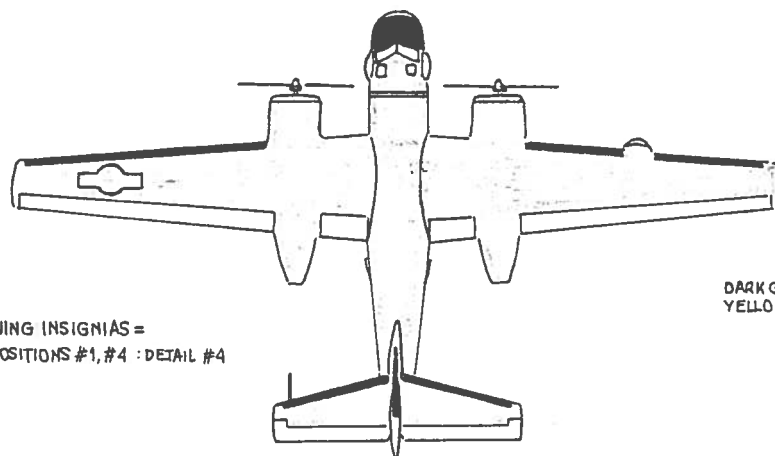
## SERV. AERONAV.'s INSIGNIA

DETAIL #6



# VENEZUELAN NAVY's CONFIGURATION

S-2E



WING INSIGNIAS =  
POSITIONS #1, #4 : DETAIL #4

## PROPELLER'S BLADES COLORS DETAIL #7

• BRAZIL

• PERÚ

DARK GREEN  
YELLOW

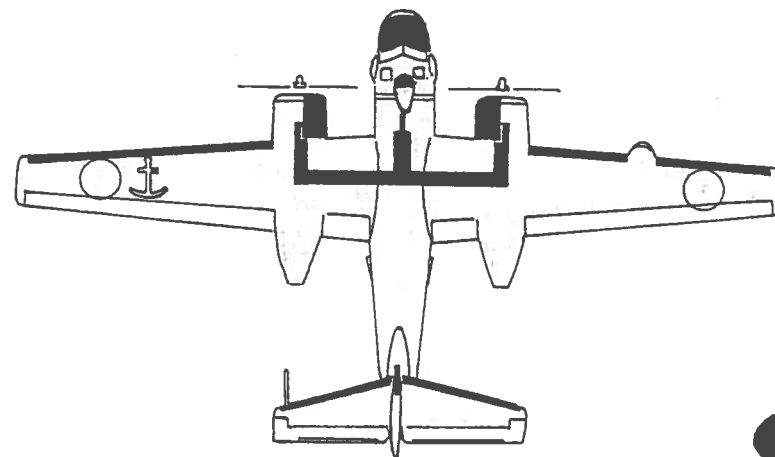
RED  
WHITE

BLACK

• URUGUAY  
• VENEZUELA  
WHITE  
RED

# URUGUAYAN NAVY's CONFIGUR.

S-2A



WING INSIGNIAS =  
POSITIONS #1, #4 = DETAIL #5  
POSITIONS #2, #3 = DETAIL #5 - NO ANCHORS-

**S.A.F.O.**

DRAWING BY JORGE F. NÚÑEZ PARRIN - JANUARY 1982

"I would like to read more about the naval air arms that display distinctive naval symbols as well as national markings, e.g., the Philippine Navy tail insignia, Ecuadorian Navy a/c with tail bearing an anchor below a condor, Islamic Republic of Iran Navy as well as the Imperial Iranian Navy, Venezuelan Navy, Uruguayan Navy, former Cambodian naval air arm, Turkish Navy, Yugoslavian Navy, Bulgarian Navy, Trinidad & Tobago Coast Guard, Polish Navy, East German Navy, Paraguayan Navy, West Indies Federation Navy 1958-1962(?), former Royal Norwegian Navy Air Force, Spanish Navy tail emblem, Italian Navy (roundel & anchor colors), Greek Navy, Pakistan Navy, Royal Danish Navy, Royal Netherlands East Indies Navy, Taiwan Navy, Aviation of the People's Navy (Chinese), Vietnam People's Navy, Royal Thai Navy, Mexican Navy, Force Navale Belge, Marineflieger (West Germany), Royal Netherlands Navy, and Royal Swedish Navy. Perhaps someone in the SAFCH could write a series on the distinctive markings carried by naval, army, coast guard, and (border) police a/c.

"Have the national markings for the Seychelles been changed? If not, are they carried only on the fuselage and tail or also on the wings? Does anyone know the national markings of Força Aerea de Guine-Bissau, Afghanistan, People's Republic of Kampuchea, current Guinea, current (Greek) Cypriot National Guard, Equatorial Guinea, the former Sierra Leonean Military Force Air Arm, Comoros Military Aviation, and Burundi (like Italian but without fin flash)?

"At some time in its history, the UAE AF carried a red and white roundel with the outer red having black arabic script above and white english script below. The center white bore the UAE national coat of arms. Does anyone have details of the colors?

"Enclosed is late news (3/5/82) about changes in Swaziland national markings."

Creighton S. Kern (SAFCH #541), 25 S. Monroe St., Ridgewood, NJ 07450

"The Swaziland Defense Force operates two Arava 201 aircraft. These aircraft have serial numbers 59 and 70 and carry the registrations 3D-DAA and 3D-DAC respectively. Aircraft 3D-DAA is painted in green and brown camouflage similar to the standard USAF military aircraft camouflage. The underside of the wings and fuselage are off-white. Aircraft 3D-DAC is painted white and has one wide, horizontal orange stripe the length of the fuselage. The underside of the wings and fuselage are grey. A large, black and white (rather than blue, red and yellow) Swaziland flag insignia is painted on each vertical stabilizer of the latter aircraft.

"Currently these two aircraft are flying local missions for training of the aircrews. To the best of my knowledge these planes are not used by King Sobhuza or the royal family. Incidentally, I do think King Sobhuza has ever flown in an airplane.

"Organizationally, I believe there is no separate Air Wing of the Swaziland Defense Force.

"The Government of Swaziland has no other military, para-military or police aircraft."

Ambassador Richard C. Matheron, Mbabane, Swaziland

"Here are some references from current magazines that might be of interest to readers curious about aviation in the Spanish Civil War: AIRPOWER (Sept. 82) "Soldier of Fortune - Part I" American aircraft in the Spanish Civil War; many photos. Also of interest to aficionados of Basque aviation. AIR ENTHUSIAST 18 "Estonian Air Power 1918-1945" photos of the Bristol Bulldogs and Potez 25A.2's later used over the Basque country 1936-37; "A Seversky in the Spanish War" the SEV-3 in Catalonia 1938-39.

"I have not noticed any reference in SAFO to the excellent French magazine LE FANATIQUE DE L'AVIATION. This magazine has b&w and color photos and profile/plan-views, articles on aircraft, models, museums, etc., and many items of interest to small air force enthusiasts. It is published monthly and costs 15 ff each or 176 ff for

a foreign subscription to 12 issues. Here are some of the article they have published on the Spanish Civil War. Issue #28: "Les Chasseurs Loire 40-46". Issue #58: three photos of Legion Condor He 111. Issues #67 & 68: "Hispano Aviation 1916-1972" (2 parts). Issue #70: "Vista Suerte y al Toro". Issues #102 & 103: "Polikarpov I-15 'Chato'" (2 parts). Issues #117 & 118: Potez 25. Issues #121 & 122: "Hawker 'Spanish Fury'" (2 parts). Issues #134 & 135: "Potez 540 en Espagne" (2 parts). Issues #137, 138, & 139: "Hispano Nieuport 52" (2 parts).

"I hope this helps to increase the common store of information."

Tom Sarbaugh (SAFCH #497), 25 Roble Rd., Berkeley, CA 94705

"A am looking for the following kits: Aurora CF 105 (1/72 scale), Lindberg B-58 (1/64 scale, not 1/96 scale) & XB-70 (1/72 scale), Frog Scimitar, Monogram B-66, Revell P6M, and Hawk Swift. In exchange, I can provide the following rare kits: Frog (Shackleton, Whitley, Hornet, etc.), Delta (Caproni Campini CC.1 & MC.72), Heller (Amiot, etc.), and vacuform SF.260, Piaggio P.108, Breda 88, SAI 207, SAI 403, Fiat Cansa FC.20, & SVA 5."

Silvio Poli (SAFCH #587), via Callegari 10, 25121 Brescia, ITALY

"In response to Mick Burton's questions about the colors of Israeli helicopters (SAFO #23), the information I have is that they are painted in the US: dark tan FS 30219, sand FS 33531, pale green FS 34227, & duck egg blue FS 35622. This information comes from Testors' 'Model Masters Color List - July 1982' Testors has both a bottle and a spray can for FS 30219, but the other three colors come only in bottles at the present. These colors are right on the FS 595 colors."

Bill Shenk (SAFCH #599), 21957 Crescent Court, Farmington Hills, MI 48024.

"I saw in a SAFO a profile of DH 9 in Dutch colours. If any SAFO members are interested in early Dutch aircraft, some interesting books are available from Hugo Hooftmann, Cockpit-Uitgeverij, POB 21, 6720 AA Bennekom, the Netherlands. I have about ten books about the Dutch AF and even though they are in the Dutch language they are wonderful. There are about 15 photos of DH 9 in the book 'Militaire Luchtvaart in Nederlandsch Indie - Vol. 1' which also contains photos of Avro 504K, Curtiss P-6E, Fokker C-IV, C-V, C-X, D-VII, Martin 139 & 166, and other aircraft used by the NEIAF. I have also found a wonderful book from the Historical Section of the Dutch Navy about the Dornier Do 24K and its actions against the Japanese. It is in the Dutch language with 68 photos. The address is A Fdeling Maritien Historic, Jan van Nassaustraat 112, 2596 BW 's Gzaenhage, the Netherlands. Michel Ledet (SAFCH #602), 16 rue Rosa Luxembourg, 62230 Outreau, FRANCE

"I read with great interest Jorge Nunez's comments (SAFO #23) on my Argentine Duck article (SAFO #21). Over a year after I compiled the material for this article, I came across additional information: (1) there were 31 additional Ducks added to the inventory, (2) 2-0-6 was not one of the 1937-vintage machines, but actually a J2F-5 (A photo of two Ducks, including 2-0-6, appears in the book 'Puerto Belgrano HORA O: La Marina se Subleva' 3rd edition, Edicion Diario Democracia, Bahia Blanca, 1956), (3) regarding the fate of M-0-5, a G-2 report (No. 5812, 27 May '38) states: 'On 27 May, during a calibration flight, Grumman M-0-5 flown by Alferez (ensign) Ronaldo J. Rositer and mechanic Guillermo Casso crashed. The pilot was thrown clear and picked up by a launch. Casso drowned. The Argentine Navy did not release details of the crash.', and (4) I must disagree with Jorge regarding the serials of the other G-15s; 612/614 did carry s/n 3-0-5/3-0-7, at least they left the US with these s/n (as the enclosed photo obtained from Grumman Aircraft many years ago will bear out).

"Regarding the Cuban Sea Furies: Two were definitely delivered prior to 1 Jan. '59, and these were used in the closing stages of the campaign. A book recently added to Pucara's library via one of our 'men in Cuba' ('Amanecer en Giron', Rafael del Pino, Editorial Letras Cubana, 1982) refers to the Sea Furies which were acquired 'almost new' by Batista: 'By Sept. 1960 they were in horrible shape. They were used to train cadets at Columbia Air Base along with some Cuban Navy Grumman TBM's. One Fury was w.o. by Bauzac.' From other Cuban publications we learn that despite cannibalization, at least six Sea Furies were active during the Bay of Pigs affair. These included 534 (missing in action 17 April '61), 541, 542, and 580. I have clipping from the Havana magazine 'Bohemia' (Jan. '59) which shows a Sea Fury FB.11 in either dark green or black finish (it is impossible to tell, as the photo is on a rotogravure page in sepia). However, the mottled color scheme of 541 can be clearly seen in the enclosed snap-shot taken from an East German publication."

George Rauch(SAFCEM #536), PO Box 1365, Highland Park, NJ 08904

"The piece on pp 86 of SAFO #23 concerning the Cuban Hawker Sea Furies was most interesting. Curiously, it was reinforced by way of a book I recently received; "Operation Puma" by Edward B. Ferrer, published by International Aviation Consultants, PO Box 59-3493, AMF, Miami FL 33159. It is without a doubt the best history of the Air Battle for the Bay of Pigs Invasion. I won't try to summarize all the references to various aircraft here, as they are too numerous, but it appears that the Sea Furies figured very prominently in the air action! According to the intelligence given to the CIA-supported Cuban patriots, Castro had five Sea Furies on hand at the time of the invasion, three of which were at San Antonio de los Baños airfield south of Havana. As Hal Ahrens pointed out in his excellent synopsis of the available data concerning the Sea Furies originally intended for Cuba, it appears that none of this original order were delivered (unless one includes the demonstrator which cannot be positively discounted). However, that leaves the question: From where did the five Sea Furies come? Cast around a moment; where else could they have come from? I have several photos that show an FB.11 in a US civilian registration, N4763T, and one view shows what is apparently the beginnings of an unfinished Cuban national insignia under the port wing. I haven't traced the history of N4763T yet, but I'll bet it turns out to be ex-Royal Canadian Navy! The remains of the letters 'NA...' can just be seen on the port fuselage of '3T. It is not unacceptable to assume that the Cuban Sea Furies were all ex-RCN machines; there has been a long tradition of surplus aircraft sales (prior to and even after Batista) from Canada to Cuba. Perhaps some of our Canadian friends can delve into this. Finally, if my records properly serve, Georg von Rauch once informed me that a Cuban Sea Fury, taken on strength with the Fuerza Aerea Ejercito Cubana (FAEC) as early as 20 Dec. '58, was FAEC 500. He also suggested FAR 541, 542, and 543. I have a very early, post-Bay of Pigs photo which shows one of the Sea Furies, complete with ordnance underwing, as FAR42 (not 542) and no other markings.

"My friend Jorge Nunez, in his fine update on Argentine Ducks and helicopters in citing "first flight of a helicopter in Argentine Navy markings" on pp 88 may want to rephrase that a bit, as I have a photo of 1-HE-1 taken at the Bell plant in full Argentine Navy markings, in flight, circa Feb. '48. And it was not carrying test registration, although I'm sure it had one assigned. Thus, he cites the first flight of an Argentine Naval helicopter in Argentine Naval markings in Argentina!

"Regarding Horst Eichert's Chilean Navy comments: I know of Army Vixen 'V 12', but have not seen a photo of one as '12A'. Please accept my thanks for the information and photos of the HU-16. My proposal was only in regard to the total number of aircraft acquired. I've done a bit more sleuthing through my files and present the following: FAC 267 was one of the a/c which went back to Grumman for reconfiguration. It was an UH-16B c/n 57

ex-USAF 49-099 and became FAC 567 after conversion (and is now, incidentally, N8497J). FAC 269 like 267, was also reconfigured, and is c/n 87 ex-USAF 51-014, a HU-16B, and became FAC 569 (and is now N8497N). FAC 273 is officially regarded as a HU-16B-Triphibian and is c/n 451, ex-Canadian Forces 9303, and became FAC 573 (and now N8497H). FAC 274 is like FAC 273, ex-RCAF 9310 c/n 458 and became FAC 574 (and now N8497E). So the totals remain the same; same a/c but different s/n's. Also, thanks for the photos of the Bell 47J's; it puts my mind to rest. Bell didn't know either.

"The piece on Paraguayan Naval aviation on pp 120 by my good friend Bram Risseuw must have raised a few eyebrows. I'm sure everybody would dearly love to have had Paraguay operating a Savoia SM.79bis, but of course R-1 was actually a SM.59bis. (Editor's note: I can't find Bram's original manuscript, but 'five will get you ten' that this was a typing error on my part and Bram is blameless.) There is some evidence that it was not scrapped in 1935. Two reports, dated March and June 1943, still show the aircraft as nominally on strength but in poor condition. By 6 May '44, however, the footnote states that 'the Navy's old Savoia had finally been junked. I have a fairly good photo of this aircraft, and am reasonably certain it had a previous Argentine civil identity in the R... series. Regarding the Paraguayan Navy Cant 10ter, I've never been completely satisfied with this aircraft, as it has never appeared on any Attache or Intelligence reports I've seen, and these reports were, in most cases, remarkably accurate documents for their time. However, there was a Cantieri Cant.26 with 85 hp ADC Cirrus II engine registered in Argentina to the Italian government (nominally) as R185 which was cited as sold to N.Bó of Paraguay sometime around May 1933. Perhaps this is the aircraft in question. Hopefully some of our Italian readers can advise regarding the degree of similitude between these two aircraft types. The Paraguayan SAML A.3 also poses some interesting questions, as a number of these diminutive aircraft seem to have ended up in Paraguay with either the Army, Navy, or revolutionary forces (most, if not all, originating in Argentina). Candidates include: Ex-Argentine R125 a SAML registered to O.Pian (Las Rosas) but with a 220 hp SPA engine at Santa Fe (but still current in May '33, so can probably be ruled out). Ex-Argentine R117 a SAML (or SALM as shown on Argentine documents) registered initially to A. Carnevale and later to C. Aboscal with an Alfa-Romeo Colombo engine (therefore a prime candidate). Ex-Argentine R165 a SAML registered to H. Biancard & J. Sola with a SPA engine (a possibility). Ex-Argentine R196 a SAML (or SALM) registered to E. & H. Gatti with an Alfa-Romeo Colombo engine but which apparently became LV-XAA later, so it can probably be ruled out. These are all of the SAML aircraft known to me as possible candidates for export to Paraguay, but of course, the intrigues of 50-60 years ago may forever leave the final identities of the precise aircraft unknown. Going on to the Macchi M.18's (of which I have a nice photo of R-3), it does in fact appear that one was lost on the Chaco War, but believe it or not, the Navy (after retiring the machine earlier) was reported as overhauling the surviving aircraft for return to service in August '43. By October '47, it was still shown on the AOB but of course by then reported 'out of commission'. The Vultee BT-13, which had always been an enigma to me as it has never shown up on any AOB reports, had been reported to me by Georg von Rauch as having been presented to the Paraguayan Navy by the Argentine Navy on 1959, together with spare parts. Bram's explanation that it was in fact the property of the Argentine Mission explains this discrepancy. I suspect that it is safe to say that at least two of the Paraguayan Navy Bell 47's were ex-Argentine Navy, and possibly all of them. Some have suggested that they are ex-FAP, but I do not believe that this sort of equanimity existed between these two services. Not included in Bram's survey were one Breda Ba-25 Idro acquired in 1939 with a 200 hp 9-cylinder engine (the Army had acquired three others); this one cost \$19,197 and had twin floats. It was still on strength as late as 21 August '43 but grounded for lack of parts.

Finally, the only aircraft received under Lend Lease during WWII by the Paraguayan Navy (and one of which is probably the aircraft Bram cited as being 'amphibian bi-plane preserved at Puerto Sajonia 1974') were two Naval Aircraft Factory (NAF) N3N-3 primary trainers delivered in November '43, both remaining in service as late as 31 October '47.

"Regarding the series of T-28 drawings on pp 97-100: It's a shame that the Mexican T-28 was not shown with any of the very distinctive unit insignia that they carried, nor was a s/n shown. The Haitian machine is not a T-28D, but rather started life as a T-28A-NA (USAF s/n 51-7542) and later went to France where it was brought up to the Fennec standard. It was subsequently sold into the US as part of the trade-in deal on Haiti's Cessna 337's and became N14112. My photos of the eight Haitian T-28 that came back to the states show only fuselage insignia, no wing insignia in any position. (I hope someone has noticed that the Haitian national insignia has changed in recent years. When I was at Bowen Field in May 1979, a mix was still in use, but most aircraft bore the insignia as shown in the drawings.) The FAE example is actually 49-1545, and the scheme shown is as it appears in the FAE "museum", not as actually carried while in service. The FAE has had a wide variance in presentation of the s/n's and "buzz" numbers on their T-28A's and D's operated since 5 June '65. The Brazilian example is not a Fennec, but rather the more exotic US-converted T-28R-1. (These aircraft were originally procured by the Brazilian Navy and were the most colorful of all T-28's.) The drawing omits the serials from the fin of this aircraft; 'T-28' being over '0864' in about 9 1/2 inch black characters. There have been two Bolivian FAB-405's, and I am not sure which is illustrated. One was a T-28A ex 49-1524 which was soc 30 June '68; its replacement was T-28D-5 ex 63-5794. There is a better than even chance that the first FAB-405 was brought up to T-28D-5 standard before delivery, but I've no evidence, as Bolivian also operated a mixed bag of A's and D's. The Honduran machine is a puzzle, as I'm not too sure what a T-28E is. Honduras received at least five T-28A's, three T-28D's, and at least one of the ex-Moroccan T-28S (sic) Fennec's, most of which were impounded in Florida enroute to Honduras in 1978. (Some folks think they were actually enroute to Nicaragua.) The FAH also received six ex-UNS T-28B's in 1980 ... but no T-28E's that I know of, whatever it is. Lowest s/n I know of is FAH 212; highest FAH 235. The seven Dominican aircraft were not Fennec's either. The T-28's they received were almost all T-28A's from good-ole USAF/MAP channels, although two T-28D's were programmed. However, two camouflaged T-28's for the FAD, given as FAD-1603 and 1610, were noted at Fort Lauderdale on 24 May '80, and there is a pretty good chance that these may be a couple of ex-Moroccan Fennecs, originally intended for Honduras cum Nicaragua. Likewise, the Argentine Air Force T-28's were not Fennecs either; they were all surplus T-28A's (the Argentine Navy aircraft were ex-French Fennecs). The FAN T-28's included mostly A's, but at least one D. They were serialized initially in the 400's (example include 412, 413, and 414), but later in the 200's (e.g., 213, 215, 217-219).

"The interesting article on the Fiat G-55 on pp 103-106 was very well done. It was a treat to see someone finally get the totals right. However, the Argentine machines were apparently not scrapped as quickly as indicated. Thirty-six were still on strength on 30 June '54 (and it is worth noting that the group employing the G-55's was concurrently equipped with the well-liked Hawk 75-O's). Further, the AOB for June '54 states that, of the machines on hand with the 1° Grupo de Casa of the IV Brigada (dependency of the Comando Aerea Tactico) at El Plumerillo, Mendoza, not less than 18 were rated Combat Ready! Finally, and oddly, the AOB for June '57 does not show any G-55's, but that for June '58 shows 23 still on account! The drawing on pp 100 may be in error in that it shows the wing guns and nose gun fairings in place. A photo I have of C-21 shows all gun emplacements completely faired over. The guns could have been in place at one time or another, but the text seems to indicate that this was not the case.

"In connection with Nick Waters' brief comments on the same page, it should be noted that Cuba's FAEC received a total of 8 T-33A-1-LO's commencing in June '54; the last four not being received until August '56. They were serialized FAEC 701, 703, 705, 707, 709, 711, 713, and 715. Bay of Pigs invasion forces stated that the aircraft they encountered were camouflaged, but there is some question as to whether they carried any markings. They were very hastily camouflaged, and refinements such as s/n's were awaited until things were less uncertain. It is interesting to note the relative speed with which the T-33's were absorbed into the FAEC. In 1953, they only accumulated a total of 792 air miles (for some reason, flight hours were not used as a measure at that time by the FAEC), while in 1954, 8333 miles were amassed. Only two previous identities are thus far known: 52-99596A and 55-4946. The first four delivered were purchased under RAP and were assigned to the 'Tenth of March' Fighter Squadron at Campo Grande and enjoyed very high state of readiness.

"The drawing of the FAH B-26 FAH 510 on the same page reminds me that this aircraft is still in service with the FAH, although camouflaged, and I was able to photograph it in April '80 during their 50th anniversary celebration. It has had several schemes during FAH service.

"Jackson Flores' excellent resume of Brazilian FW-58's on pp 122 and 123 failed to mention one thing: while in service with the Brazilian Navy, they also carried unit-type markings similar to US Navy usage. For example, one Navy FW-58 had the code 2-V-6 on its fuselage side, another was 2-V-12. I think perhaps from c/n 214 onward, it should be made clear that the Naval s/n was probably assigned but not taken up (ntu) or carried, as by that time the FAB had absorbed production. The two impressed Sindicato Condor FW-58C's were c/n 3102 PP-CBM and c/n 3103 PP-CBN. Other sources site c/n 210 (which Jackson shows as c/n 222) becoming PP-EBF ex-FAB AT-FW58 1191 with Govt. Estado Goias then on to PT-BHL. PP-EBG was also ex-FAB (given as AT-FW58-1509) which went to PT-BHM circa 29 March '60 (surely one of the last FW-58's in use anywhere in the world) and this one doesn't seem to fit Jackson's series, unless further rebuilds/reserials took place similar to c/n 215. Further confusion arises when we look at PP-ECD, which is listed as an ex-military FW-58 c/n 200, further going on to become PT-BHN. However, PT-BHN is also given as c/n 220, which seems more likely. It might also interest members to know that the two impressed ex-Condor aircraft, c/n 3102 and 3103, have also been identified as FW-58L-12's, PP-CBM serving with Condor from 1940-1942 as 'Cucuri' and PP-CBN serving the same period as 'Aguari'. There is a chance that these two aircraft had a previous German identity in the 'D-...' series, but it has not yet come to light.

"Mike Mirkovic's drawings of Latin American PC-7's were interesting, and folks might be interested to know that at least four of these a/c with the Bolivian Colegio Militar de Aviacion (FAB-454, 456, 461, and 451) now sport that organization's insignia on the fin, red wing tips and horizontal tail tips, red spinner, and sharks mouth markings. It's a pity that the Guatemalan machines were not depicted.

"The Snippets from SEAR on pp 126 needs a few comments: The new Bolivian Cessnas, c/n 05929, etc., are all TU206G's, except c/n 06098 (s/n 242) which for some reason is a U206G.

"The Nicaraguan air force is now known officially as Fuerza Aerea Sandanista (FAS) and has a new national insignia. Perhaps someone can supply us with a drawing or photo of this new insignia."

"I guess that this is more than enough for this time. Hope everyone will take my comments in the spirit in which they have always been intended."

MSG Daniel P. Hagedorn (SAFCH #394), 2909-40-0270, HHC 3d Brigade, APO New York, 09074

# WARBIRDS by Owers

NIEUPORT DELAGE NiD 29

Too late to see service in the Great War, the Nieuport-Delage 29 Cl became the standard French fighter of the immediate post-War years and achieved a considerable export success. Designed by Gustave Delage, the 29 Cl was the finest fighter to come from the Nieuport stable during the Great War. With its heavy stationary engine and double bay of interplane struts, it presented a complete contrast to the earlier Nieuport scouts which were in the main rotary powered sesquiplanes.

The engine was a 300 hp Hispano Suiza 8Fb enclosed in a neat cowl. The oil tank, which was fitted below the engine crankcase, formed part of the outer surface of the cowl and was corrugated to provide cooling. The cylinder banks projected on either side and exhausted through four stubs each side.

The undercarriage consisted of two simple Vees built up of multi ply with a stream-line fairing over the divided axle. A short triangular shaped piece of elastic was stretched over the opening for the axle so as to maintain the covering of the casing when the aircraft was flying, while allowing for the travel of the axle when taking off or landing.

Cooling was accomplished by means of two Lamblin radiators mounted between the struts of the undercarriage.

The two-bay, equal-span wings were of conventional wooden construction, wire braced and fabric covered. The wooden cabane bracing was of trestle type and the one-piece upper wing was mounted with slight dihedral. There was no centre section. The lower wing was constructed in two panels and was mounted without dihedral. Full span ailerons were fitted to the lower panels only. The interplane struts were of wood bound with tape and braced with streamlined wires.

The fuselage was the most innovative feature of the aircraft being a true monocoque. This was formed by the cold-bonding of 0.8-mm thick strips of tulip wood spiral fashion in a mold. The strips were wound so that alternate strips had the grain running in the opposite direction to its predecessor. Four plywood bulkheads in front of the cockpit and 16 spruce stiffeners behind reinforced the stressed skin obtained in this process. The resulting structure was light and strong. Normal loaded weight was 1192 kg. A head rest was formed behind the pilot's seat. The lower wing roots were built into the fuselage as were the low aspect ratio tailplane and upper and lower fins. Elevators and rudder were horn balanced.

Behind the engine was situated the main fuel tank. A wind driven generator supplied electricity for lighting and the pilot's flying suit. Twin synchronised Vickers guns were mounted in front of the pilot and were almost encased for their full length.

The 29 Cl remained operational with French units until 1928. As late as 1922 it was described as the "finest fighting machine now in commission". The aircraft saw active service during the Rif rising in Morocco, serving in the fighter-bomber role, a number being converted to carry anti-personnel bombs.

The 29 G (later designated ND 32 RH) was produced with a 180 hp Le Rhone engine for the Marine Nationale. As far as can be determined, this aircraft remained a prototype only.

The 29 bis was fitted with single bay wings of reduced span.

The 29 Cl and 29 bis were demonstrated during the 1923 military aircraft competition arranged by the Spanish authorities for the selection of a new aircraft in the "hunting" category. The two Nieuports showed a clear superiority over the Spad S.71; the Fokker D.X and Dornier 'Falke' suffering accidents which prevented them passing the official trials. However, the impression gained of the latter two compared unfavorably with the two Nieuports.

The Nieuport used the same engine as the Martinsyde F.4s of the Aeronautica Militar. These had been obtained cheaply from the British Aircraft Disposal Co., but spares were hard

to obtain. Although both aircraft were from the same time scale, being designed in the closing stages of the Great War, the British aircraft had not entered squadron service in its country of origin, whereas the French aircraft was built in substantial numbers and was in service in France.

Although the contest was declared void, the Aeronautica Militar obtained 30 standard 29 Cls produced by Nieuport and Levasseur. Deliveries commenced at the end of 1923, the Getafe Hunting Group (Grupo de Caza de Getafe) was formed under Comandante Gonzalez Gallarza at the air base near Madrid. In about August 1924, Nieuports replaced the Martinsyde F.4s in the fighting squadrons of Melilla. The air base names were changed to become squadron numbers; for example, the squadron of Getafe became number 11 in February 1927.

Spanish military aviation suffered a crisis awaiting the delivery of the Nieuport-Delage 52; the number of 29 Cls being reduced such that in 1930 number 11 Grupo was amalgamated with 12 Grupo (Seville) and 13 Grupo (Leon) to form one unit. The 29 Cl was phased out in 1931. The Nieuport fighter was the second standard fighter adopted by the Aviacion Militar (the first was the Martinsyde F.4) and was issued to air bases on the old regional basis; Getafe, Seville, Leon, etc.

Belgium's Aviation Militaire used 108 29 Cls, 88 being built by SABCA between 1924 and 1926. Details of the squadrons which are known to have used the 29 Cl are as follows:

9th Squadron (Thistle insignia) used the 29 from July 1922. In 1922-23, the squadron was renumbered 2nd squadron of the IV Groupe. In November 1924, it became 2nd squadron of I Groupe until 1926 when it was abandoned. The traditions and squadron badge were taken up by the 3rd squadron of the 1st Groupe of the 1st Regiment d'Aeronautique. In 1924, the squadron began to use the Avia BH-21.

10th Squadron (Comet insignia) used the Nieuport scout from June 1922. In August 1923, this squadron was renumbered 3rd squadron of the IV Groupe de Chasse. In 1926, it was renumbered 1st squadron of the 1st Groupe of the 2nd Regiment d'Aeronautique. In 1927, the Avia BH-21 began to replace the 29.

11th Squadron (Paper Horse insignia) was renumbered 5 and 6 squadron of V Groupe in 1924. There were, in fact, two squadrons using the Spad XIII, Hanriot HD.1 and Nieuport 29 at Schaffen; the 5th and 6th of V Groupe. In June 1925, a new squadron was created, the 7th equipped with the Nieuport 29. The 6th was disbanded in January 1926. The Avia BH-21 began to replace the 29 in 1928.

Belgium is also reported to have received some 29s equipped with a 180 hp Hispano Suiza engine. This version of the 29 was a fighter trainer and about 100 examples were produced for France and Belgium. This may have been the 29 which carried the Penguin badge of the Belgian training school.

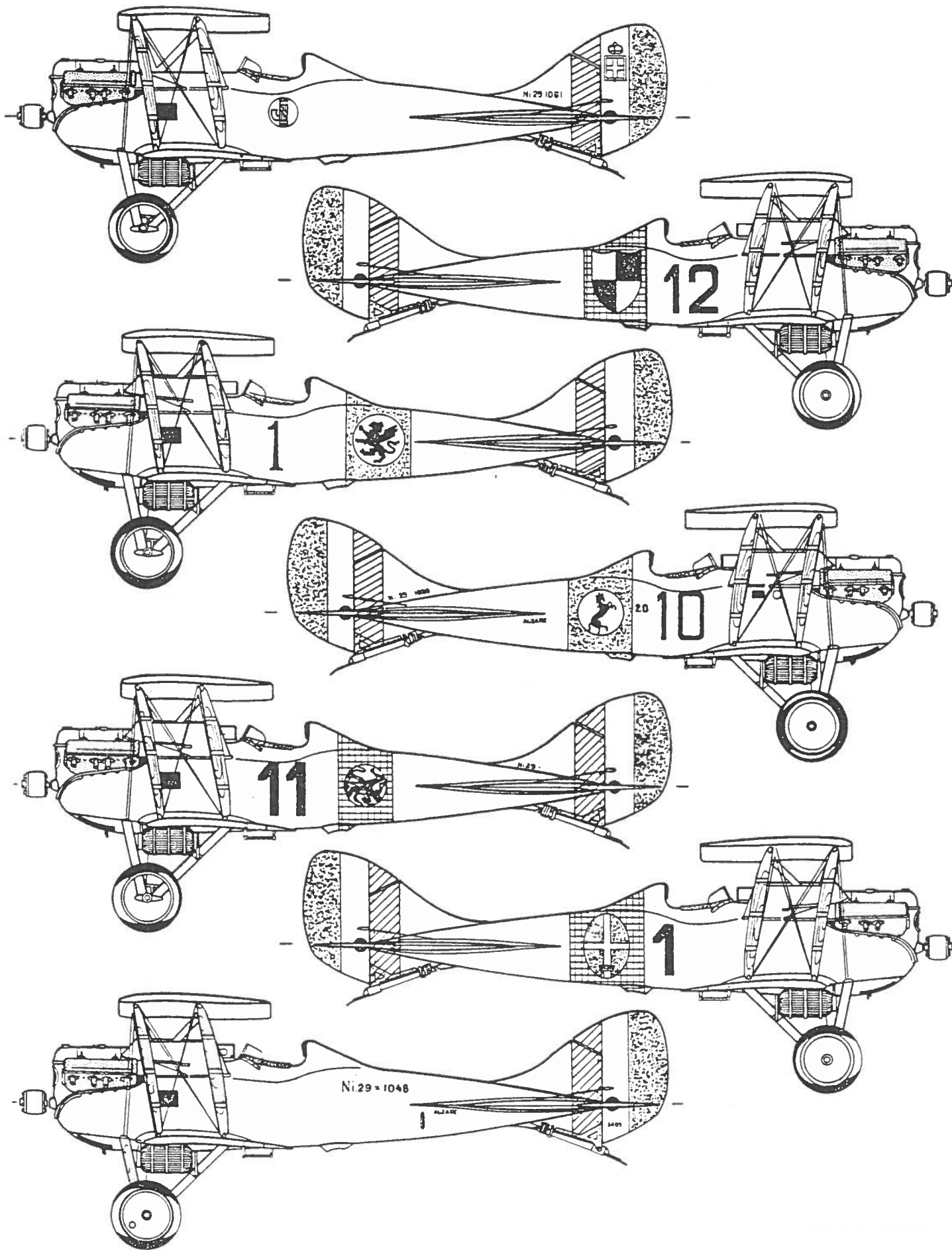
In 1926, the newly formed Royal Swedish Air Force received 10 Nieuport 29 Cls to replace its aging Phoenix D.IIs. These received the designation J.2m but were soon scrapped due to inferior workmanship. The Phoenix fighters outlived their proposed replacement in the fighter role, the 29 Cls surviving until 1930.

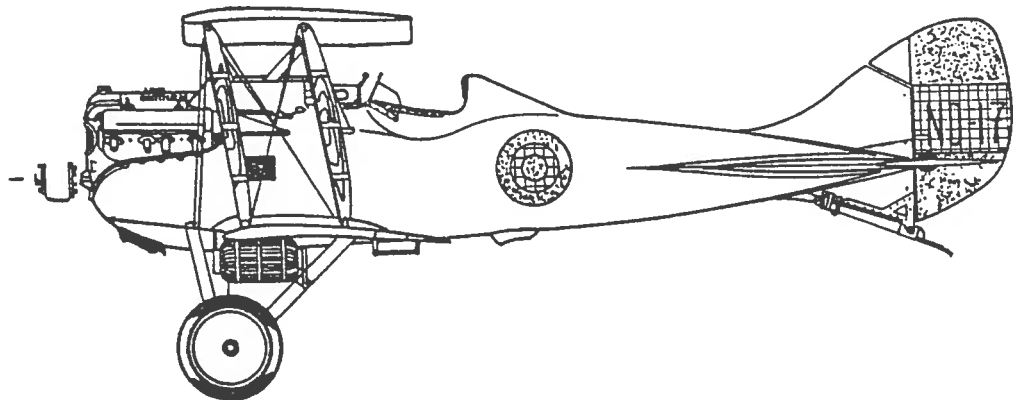
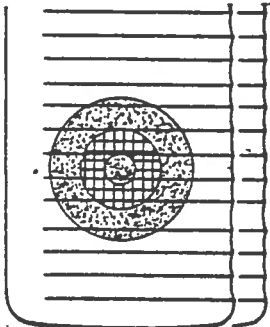
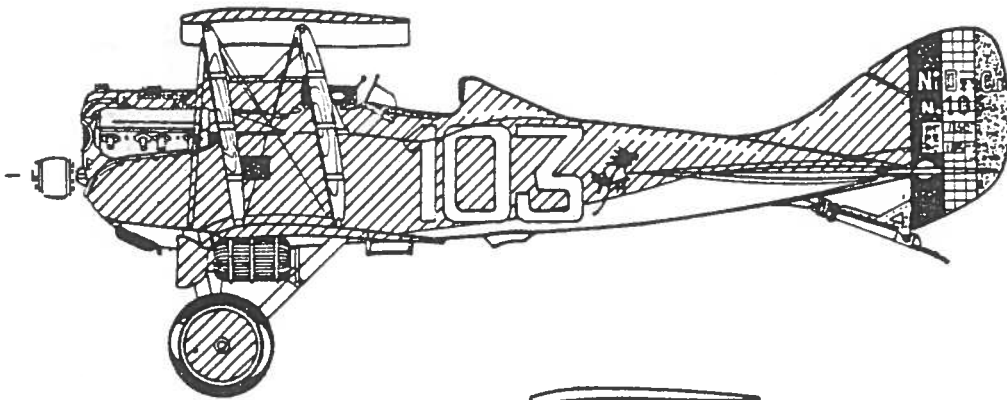
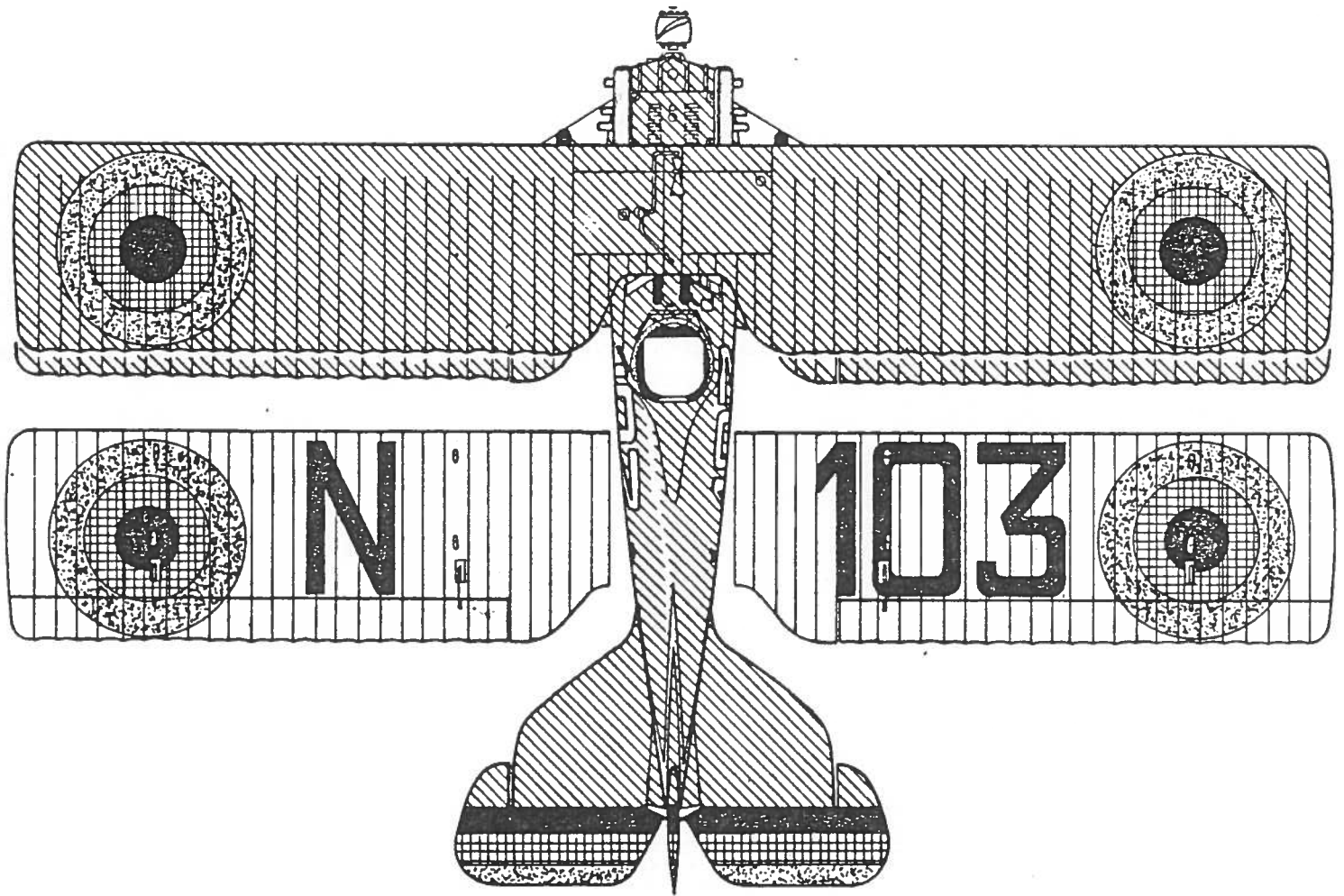
The Nieuport 29 Cl was adopted by the Italian Air Force at the start of the 1920s, and it was built under license by Macchi. An experimental version of the basic design was proposed as the Macchi 31 which consisted of a parasol wing fitted to the basic 29 fuselage. Although "Jane's" reported this aircraft as having been built in late 1924, it remained a project only.

The type was also built for the Japanese Army Air Force by Nakajima, and saw active service during the Sino-Japanese War in 1931-32.

Thailand, or Siam as it was then known, used the Nieuport 29 Cl, but apart from this fact, nothing more is known of these aircraft.







All Italian-built Nieuport 29C1's were silver overall with green, white, and red stripes on both the vertical and horizontal tail surfaces. No other national insignia were carried. Squadriglia emblems were carried on the fuselage on a colored band. Black numerals were painted forward of the insignia to denote the position of the aircraft within the Squadriglia. Manufacturer's works numbers were painted on the central tail stripe, as well as on component parts such as wings and ailerons. Some aircraft also carried the Macchi company emblem on the forward fuselage and a large data plate on the port side under the engine exhausts. Motors were gloss black enameled. Wheel covers were often removed in service.

Serial 1061 circa 1929. Note absence of machine guns and cut down cockpit decking. Fascis emblem on fuselage and House of Savoy coat of arms on central tail stripe.

Aircraft 12 of 74° Squadriglia; black/white shield on yellow band. Aircraft 1 of 91° Squadriglia; black griffin on white ground, red fuselage band, and the "black horse" emblem on the right side.

Serial 1020, circa 1924-25. Aircraft 10 of 91° Squadriglia (Baracca); black horse on white ground, red fuselage band.

Aircraft 11 of 70° Squadriglia; black and white octopus on white ground, yellow fuselage band.

Aircraft 1 of 75° Squadriglia circa 1927; white cross on red ground, yellow crown and fuselage stripe.

Serial 1048 (Works number 3409) in factory fresh finish. Note works number on central tail stripe, wheels covers, and stenciling.

The Spanish Ni-D 29C1 illustrated was drawn from a sketch. Confirmation is needed of the scheme, in particular the style of the serial ND-17 on the yellow rudder stripe, and the location and proportions of the fuselage and wing roundels.

The Belgium NiD-29C1 serial 103 wears the khaki-green and silver scheme applied to some Aviation Militaire Nieuports. Serials were white on fuselage sides and black on underwing positions. On khaki-green overall aircraft, the underwing serials were white. Note that the rudder markings are conjectural.

The Nieuport Delage 29C1 was also used by Argentina. Jane's for 1926 states that the type was in use with Observation Group No. 1 (Army Co-op). Details as to number used and markings and camouflage urgently required.

In Green's "The Air Forces of the World", the Guatemalan Air Force is recorded as having a single-seat Nieuport fighter in 1926. What type was this? Could it have been a 29C1 left by a French sales mission?

A photograph in a 1920s Jane's shows three Siamese Ni-D 29C1s. Apart from this, I have been unable to uncover any additional information other than that they replaced Spads of the 1st Pursuit Group. The Siamese 29C1s

appear to wear the standard overall French green camouflage. Were roundels carried on the wings and if so what were the proportions? Other photos of Siamese Breguet 14s in Jane's do not appear to show roundels, but this may be due to the poor reproduction of the photos.

Any information on the numbers of 29C1s supplied to Argentina and Siam would be welcome, and does anyone know more details of the French military missions which demonstrated French aircraft throughout what is now termed the Third World? The Italians were also involved with such missions and appear to have sold a lot of Ansaldo products in this way. This seems to be an overlooked piece of aeronautical history, possibly due to the disfavor which arms peddling was - and is - looked at.

Old newspaper and contemporary magazines, not just the specialist aviation journals, often contain photos or pieces of the puzzle and are a source of which more use could be made.

Research Questions: I would like to hear from anyone who can answer the following questions or provide the photographs asked for:

1. Spanish 29s: The history as recorded needs checking, particularly the unit designations. Photographs of Spanish 29s seem to be nonexistent.
2. Were the 88 29s built in Belgium all 29 C1 with the larger engine and were the 20 apparently supplied by France all equipped with the smaller engine?
3. Service details of Italian 29s are lacking. I need help translating Italian.
4. Photos of Japanese 29 C1s would be welcome if they show military markings.
5. Anything on Siamese Nieuports is needed.

#### References:

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ALPHA 1/72 VACUFORM KITS: The three latest releases from Alpha include two eagerly awaited subjects and one obscure (but nevertheless welcome) subject.

(1) The most welcome of the trio is the PZL P-37 bos twin-engine bomber. This kit is ingeniously engineered; the fuselage is split horizontally allowing the horizontal tail unit to be integrally molded with each fuselage half, and the lower surface of the wing is in one piece. This greatly simplifies construction since alignment of the horizontal surfaces is virtually automatic. The molding (including the extensive clear parts) is well done, however, the surface detail is frugal and lightly scribed. The molding of the cowlings is ineffective, and these parts may have to be scratch built or found in the proverbial spare-parts box. Since it will be a long time until we see an injection-molded kit of the bos, this kit is recommended to anyone desiring to enlarge the part of his collection representing the September Campaign.

(2) The second release is the Fokker S-14 jet trainer. The molding is again well thought out - the wing (upper surface this time) is in one piece with built-in dihedral. The surface scribing is almost nonexistent and the general molding quality is not as good as for the bos. This kit will probably take a lot of work, but it should make into an attractive model. The S-14 is a surprising-

ly large a/c and would be most impressive displayed alongside the tiny Gloster Whittle.

(3) The final offer in this series is an a/c which your editor has never heard and one that he could not find in the SAFCH files. But before you call for my resignation, let's find out how many of you can identify the RVS 32/90? (A long silence.) Give up? The instruction sheet informs me (in French) that the RSV stands for the well-known Renard-Stampe Vertongen, and that 17 RSV 32/90 served with the Belgian Air Force from 1923. The kit is rather simple with a box-like fuselage and single-surface wings and horizontal tail. The usual 1/72-scale drawing in the instructions sheet is an absolute necessity to get the struts, etc. into their proper places. This kit is recommended for the experienced builder of vacuform biplanes, and for anyone who wants to stump the "experts" at the next IPMS meeting.

When Alpha kits are good, they are as good as anything in the field (except those superb kits from KP Slovakia). While these three kits are not up to the best that Alpha has done, the uniqueness of the subjects should more than repay the modeler for the work he or she puts into them. Information about the cost of these kits, and any other Alpha kits, can be obtained from A. Longchamps (SAFCH #558), 24 Rue du Pot D'or, 4000 Liege, BELGIUM.

# THE WORLD OF JUNKERS

## PART 8 - JUNKERS JU 52/3m

Originally constructed as a single-engine transport, this aircraft was soon modified to tri-motor configuration. It was used as a passenger or freight transport and as a bomber. Norway conducted torpedo dropping tests with a single-engined version.

The Ju 52/3m was used by the air forces of Argentina, Bolivia, Bulgaria, Colombia, Ecuador, Greece, Yugoslavia, China, Croatia, Norway, Peru, Portugal, Rumania, Switzerland, Slovakia, Spain, Sweden, South Africa, Czechoslovakia, Hungary, and Austria.

1. D-ABAN, an ex-DLH aircraft marked with military wing insignia in China 1937. Normal German civil markings on fuselage. Aircraft probably impressed during Japanese assault.
2. 20+90 of the Spanish Nationalist.
3. 22+82 of the Spanish Nationalist.
4. A-701 of the Swiss Air Force circa 1940.
5. A-702 of the Swiss Air Force in 1979. The camouflage was applied for a film production and has been retained since then.
6. A-703 of Swiss Air Force in 1979.
7. 110 of Portuguese Air Force as delivered in 1937.
8. 6310 of Portuguese Air Force in 1970.
9. CHOROLQUE of the Bolivian airline LAB.
10. HUANUNI of the Bolivian airline LAB. All LAB Ju 52/3m were pressed into military service during the Gran Chaco War between 1932 and 1935. The camouflage consisted of a medium colour with irregular darker patches.

11. 621 of the Columbian Air Force. This aircraft is fitted as a landbased bomber. The Columbian aircraft were, however, used as floatplane transports for most of their early service.

12. 625 of the Columbian Air Force in later markings.

13. HA-DUR, "civil" aircraft owned by the Hungarian State Administrator, Horty, 1936.

14. CV-FAI, owned by the Rumanian prince Bibesco, 1932.

14a. Wing insignia of CV-FAI. It consisted of seven rings of equal width divided by thin white rings and has a white center.

15. Ju 52/3m of South African Air Force. Impressed from South African Airways.

16. D, ex-SAA aircraft in 1942. Possibly multi-color camouflage.

17. D-3 of Czech Air Force after WW II.

18. OK-BBB of Czech Air Guard, 1952. The door is removed for parachute training.

19. SE-AFD, ex AB Aerotransport aircraft impressed into Swedish Air Force, probably in 1939. Neutrality markings SCHWEDEN along the fuselage and possibly on the roof.

20. 4 + blue F, impressed ABA aircraft.

21. 6 + 72, impressed aircraft in later scheme.

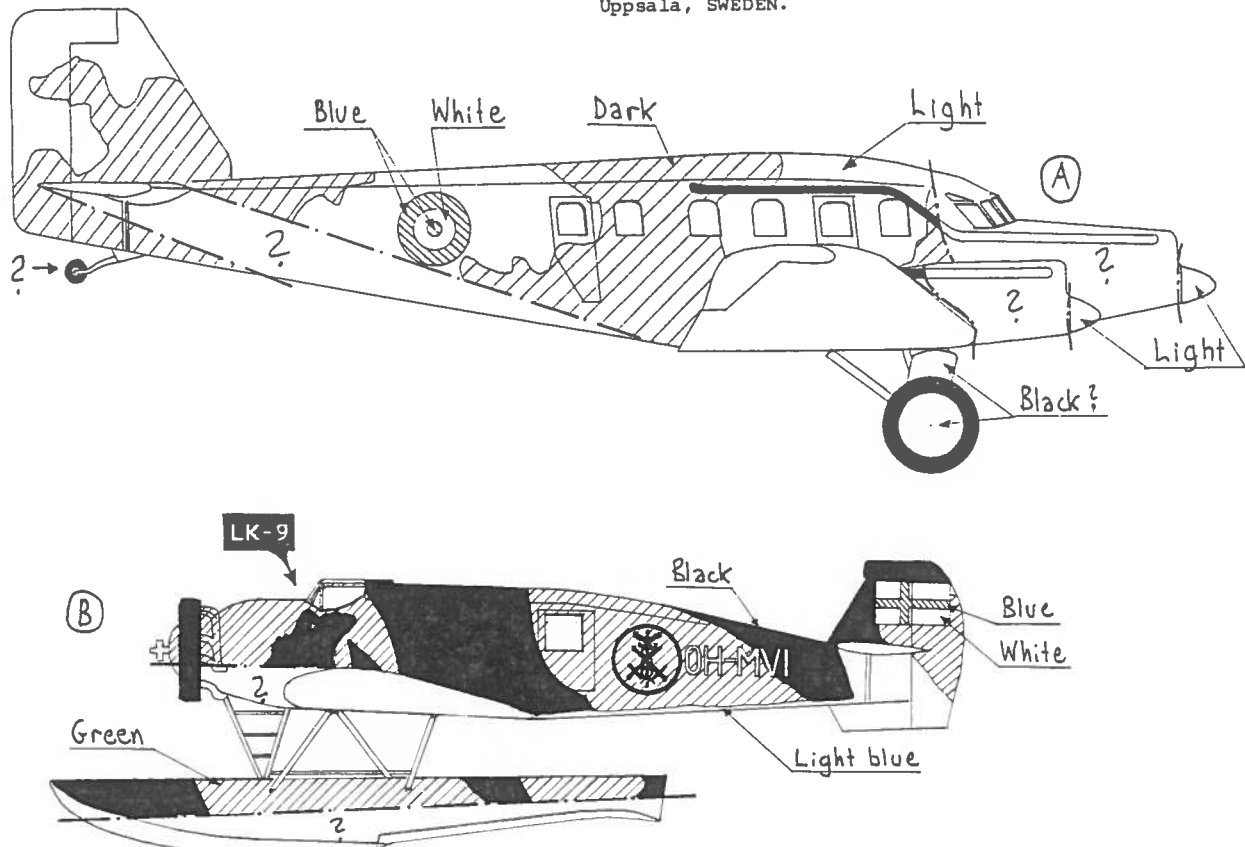
Note: The appearance and exact location of the markings drawn on aircraft 20 & 21 is mere guesswork.

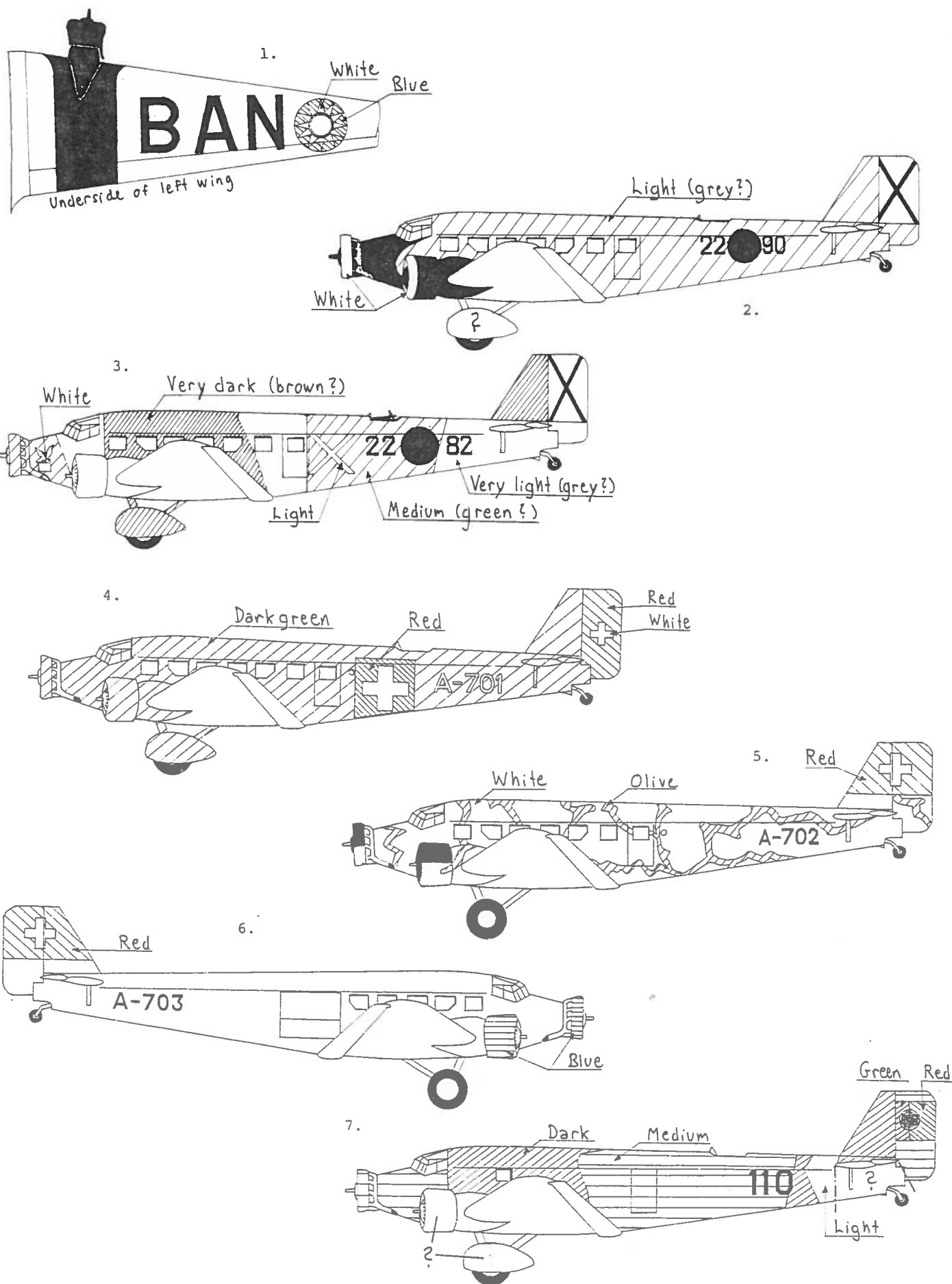
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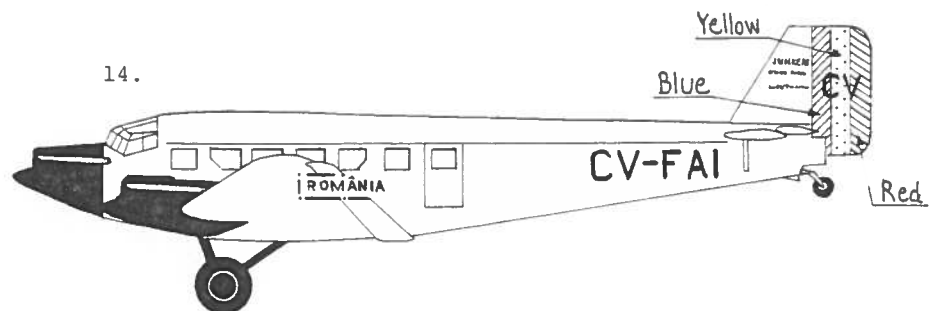
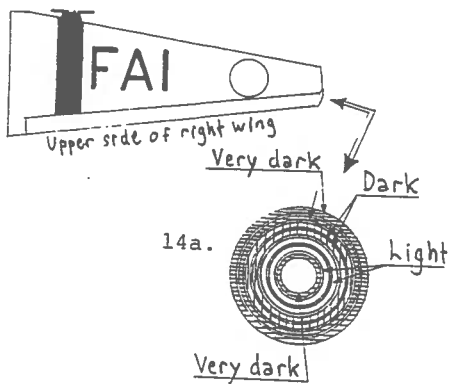
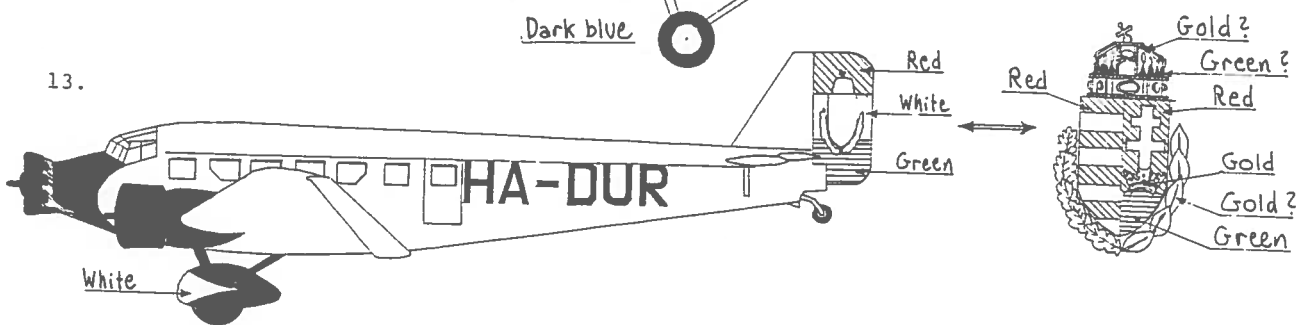
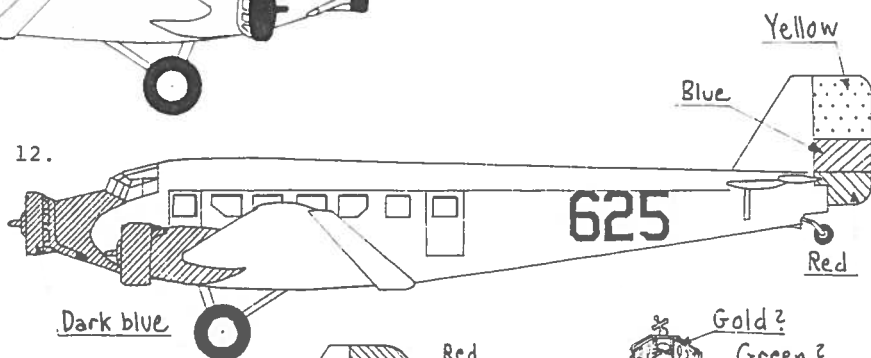
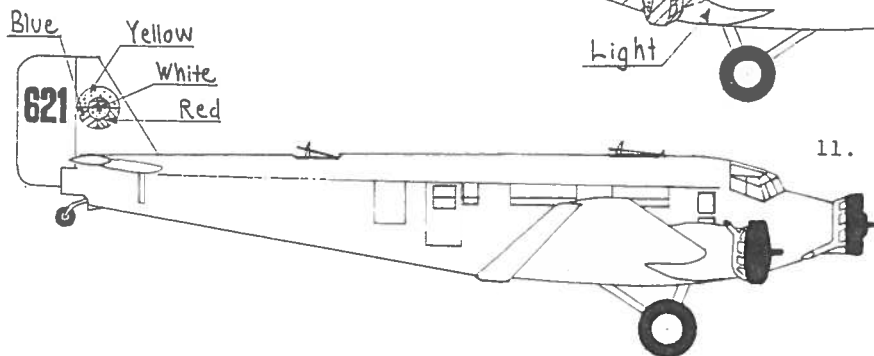
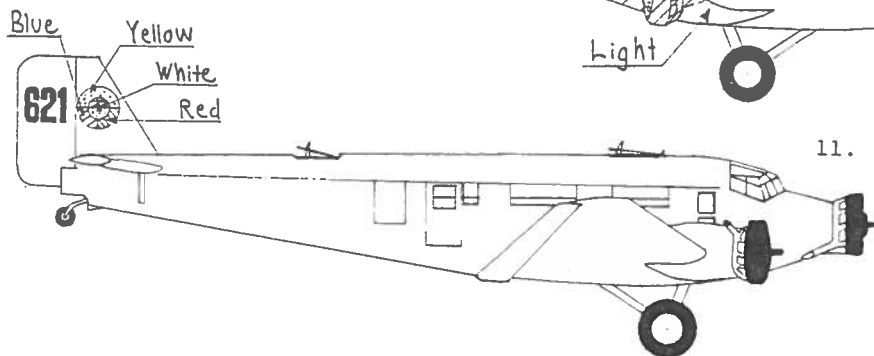
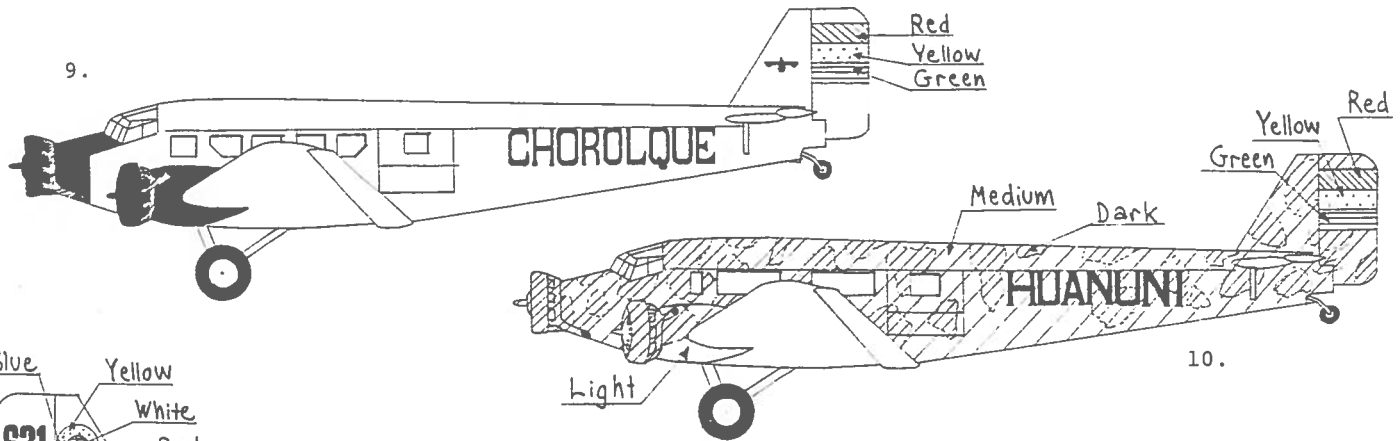
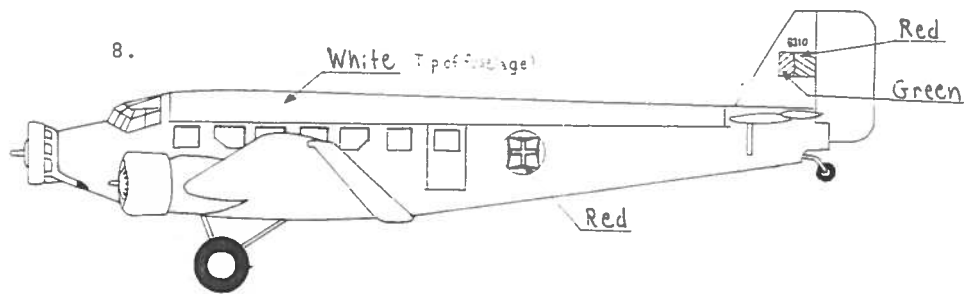
A. G-24he, ex-civil transport impressed into Greek Air Force, North Africa 1941.

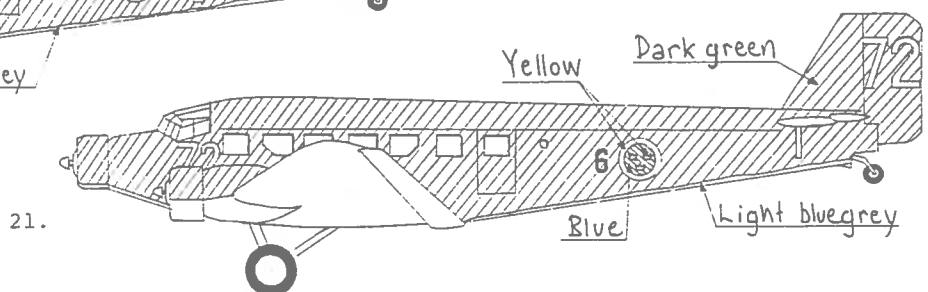
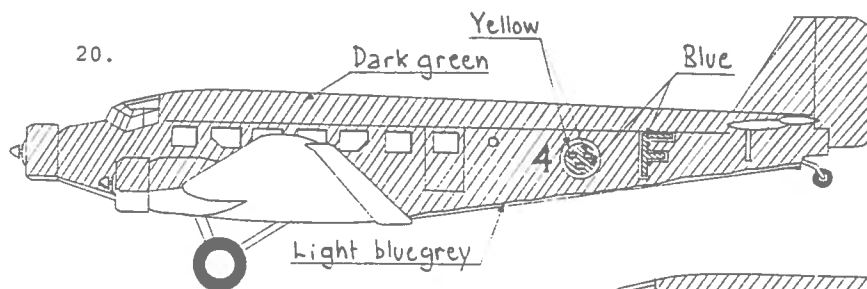
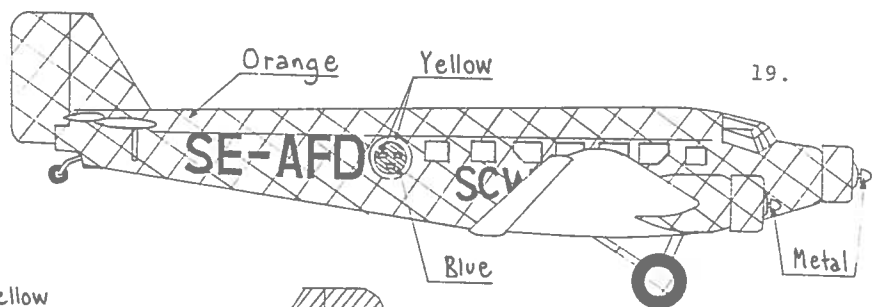
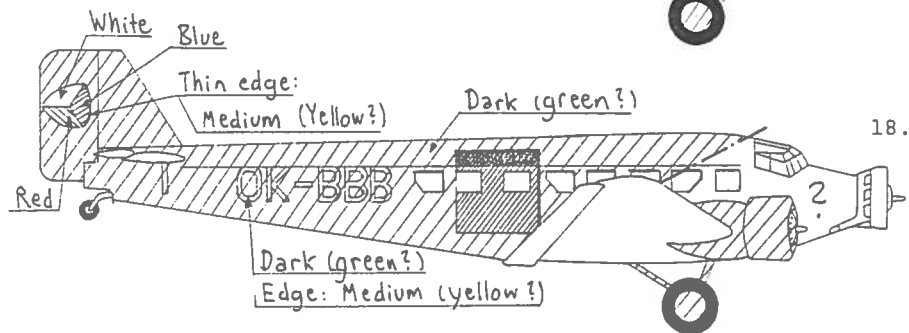
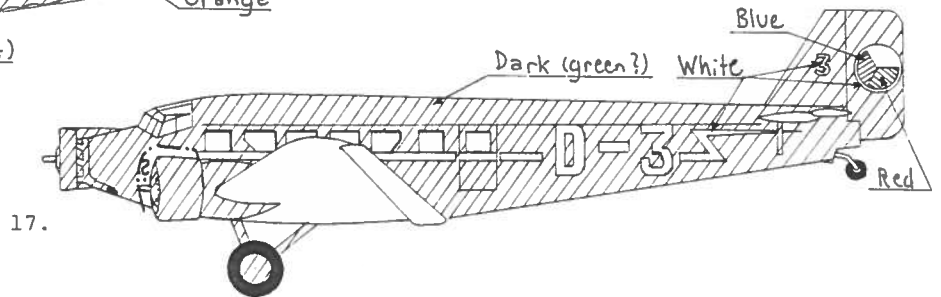
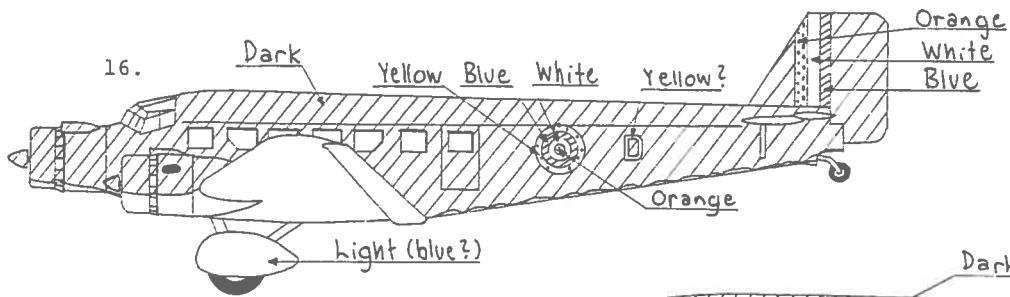
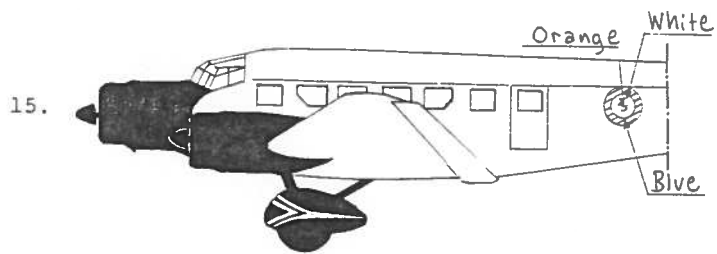
B. OH-MVI, K.43 of Finnish Coast Guard in 1945, ex-Air Force.

Lennart Andersson (SAFCH #68), Liljeg 9A, S-752 24 Uppsala, SWEDEN.









# Air War over Carinthia

Editor's note: Following the end of WWI, many little wars broke out within the territory of the moribund Austro-Hungarian Empire as resurrected countries fought for land that would give them better bargaining positions when the peace-makers finally got around to discussing boundaries. One of the lesser known of these little wars occurred between the Austrian and Slovenians over the mountainous province of Carinthia (Karnten). The following two article first appeared in OFH NACHRICHTEN, the magazine of the Austrian Aviation Historians, and are reprinted here with the kind permission of their editor.

## THE AIRCRAFT AND OPERATIONS OF THE "VOLKSEHR DEUTSCH-OSTERRICH" IN THE DEFENCE OF CARINTHIA

I would like to discuss what is probably one of the most interesting, yet little known, chapters of Austrian aviation history. Any account of Fliegertruppe Deutsch-Osterreich and its operations during the defence of Carinthia, must of necessity be incomplete because of the great lack of information. To begin with, I would like to quote a letter from Feldpilot-Hauptmann Julius Yllam who describes how the Squadron obtained its aviation equipment at Klagenfurt in 1918:

"During the next three days, there existed incredible chaos at the airfield. As planes landed, their crews simply got out and left them where they landed; if a plane crashed on touchdown, it was left where it lie; other planes were taking off to fly further north to Wiener-Neustadt, Bohemia, or Hungary.

"Making their way to Klagenfurt through Slovenian territory, individual training groups of the Fliegerkompanien had great difficulties, but they arrived in perfect order and quickly joined their respective commands.

"Anything that could be moved was stolen, what couldn't be moved was demolished. Nearly 150 of the aircraft transitting the airfield remained at Klagenfurt. Further difficulties were caused by the Czech and Hungarian pilots who spent much time at the airfield removing starters and switches from the aircraft. We were left with only 12 useable aircraft out of the 73 aircraft that littered the airfield."

The Karntener Fliegertruppe, with Hauptmann Julius Yllam as Commanding Officer, was established at airfield Klagenfurt-Annabichl at the end of 1918. Besides aircraft and maintenance materials picked up around the airfield, aircraft on the airfields at Spittal and Villach were quickly repaired and flown to Klagenfurt, Graz, and Wiener-Neustadt. The following is an excerpt from a letter by Feldpiloten-Oberleutnant Rudolf Weinlich in which he describes the difficulties encountered at the airfield Seebach/Villach in obtaining the necessary aircraft, parts, and engines:

"The hanger were occupied by the returning trainees for living quarters without regard for any fixtures. I found the quarters to be in an unbelievable state; full of junk and dung, even a horse carcass in one of the rooms. Many of the aircraft were without starters or

coils, and the maintenance shops were without tools. The following aircraft were present: 167.31 without magneto and with the fuselage torn open, 176.25, 77.84, 63.78, 77.88 without motors but with fuselage in good shape."

The military tasks of the Karntner Fliegertruppe consisted of reconnaissance, leaflet-dropping, communication, escort, interception flights, and ground attack with both machine guns and bombs. Typical operations included:

30 April 1919: 5 aircraft attacked the train station at Kuhnndorf, 3 with 160-kg bombs and 2 with four 40-kg bombs each.

4 May 1919: 2 aircraft attacked positions near St. Margareten with bombs.

4 June 1919: one aircraft attacked a train column at Rackhugel near Volkermarkt with four 40-kg bombs.

Table I is an account of one morning's activities at Air Station 2, Klagenfurt-Annabichl.

On 4 June 1919, the Fliegertruppe evacuated the airfield at Klagenfurt-Annabichl ahead of the advancing Slovenian. Operations continued out of Seebach/Villach until hostilities ceased near the end of June 1919. The peace treaty of St. Germain, negotiated in September 1919, forbade the continued existence of a Deutsch-Osterreich Air Force, and most of the equipment was destroyed under the supervision of the Allied Commission. The following is a list of aircraft at each airfield:

Klagenfurt-Annabichl (2a): 05.62, 27.84, 128.14, 29.90, 429.39, 39.253.132 (sic), 253.183, 253.184, 253.185, 161.19, 64.11, 64.29, 64.36, 369.04, 369.71, 396.144, 369.162, 369.171, 76.23, 176.44, J.

Graz (3,4): 07.501, 07.521, 121.70, 76.20, 76.41, 76.49, 76.57, 76.78, 76.90, 76.93, 83.06, 253.56, 69.61, 169.09, 369.151, 369.152.

Wiener-Neustadt (1,2): 315.03, 115.75, 121.03, 121.28, 121.56, 121.58, 121.62, 121.67, 422.30, 228.32, 129.28, 238.40, 338.04, 338.05, 338.22, 338.30, 153.251, 253.87, 253.140, 63.63, 63.78, 63.85, 69.76, 169.142, 75.11, 76.13, 76.50, 76.52, 76.68, 76.74, 76.95, 76.23, 76.54, 76.65, 176.25, 176.31, 176.81, 176.96, 77.72, 77.79, 77.80, 77.81, 77.84, 77.88, 78.23, 78.24, 78.28, 79.34, 369.164, 92.09.

Key: Brandenburg B I (75, 76, 176, 77, 78, 79); Phoenix Hansa-Brandenburg C I (27, 29, 129, 429); Ufag Hansa-Brandenburg C I (63, 64, 69, 169, 369); Phoenix C I (121, 05); Ufag C I (161); Phoenix Hansa-Brandenburg D I (128, 228); Phoenix D IIa (422); Phoenix D III (J); Oeffag-Albatros D II (53); Oeffag-Albatros D III (153, 253); WKF-Berg C I (83); Lohner-Berg D I (92, 115); Aviatik-Berg D I (238, 338); Lohner-Berg D III (315).

Acknowledgements: Thanks to the Karntner Defence Organization (Klagenfurt Region), and in particular to Mr. Franz Hafner without whose help this account would have been impossible. I also want to thank Herrn WHR. Dr. Mag. E. Steinbock for his assistance.

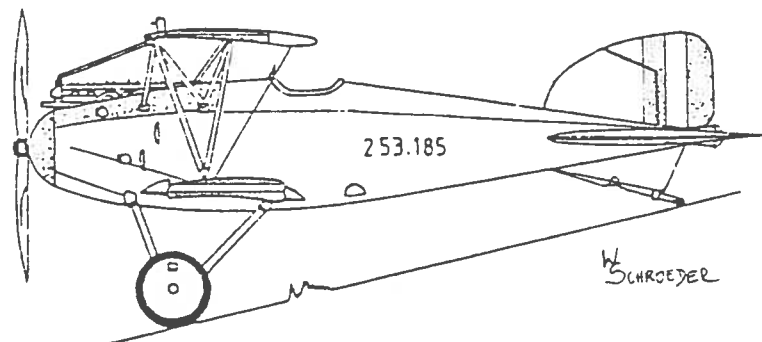
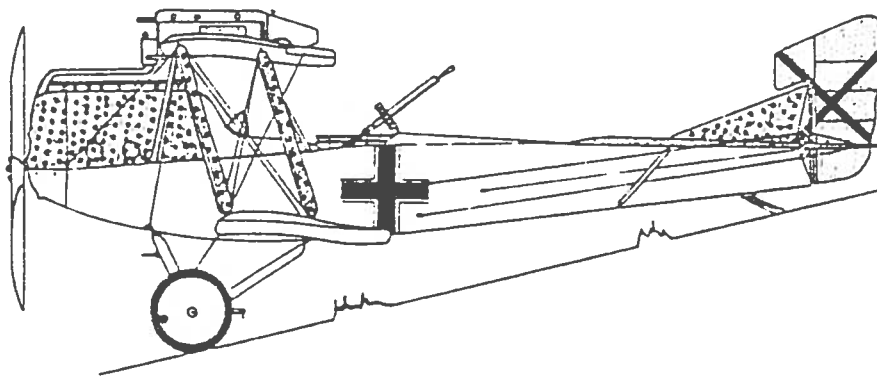
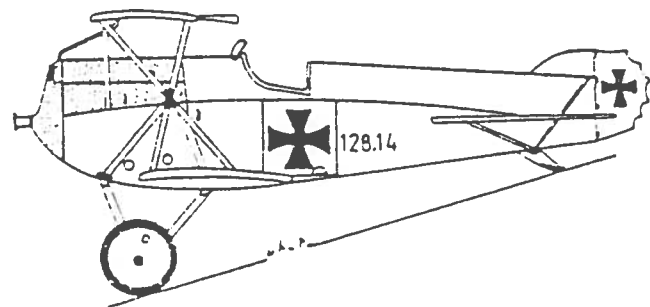
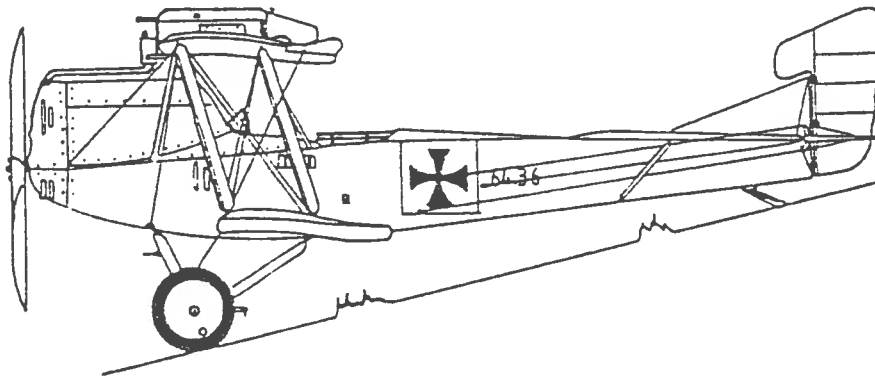
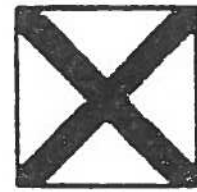
(This article, written by E. Reisinger, first appeared in OFH NACHRICHTEN 1/79. The translation into English is by Markus Woehler SAFCH #314.)

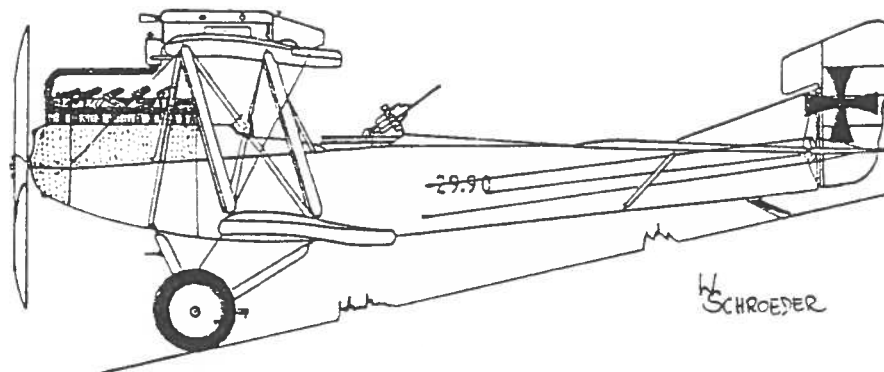
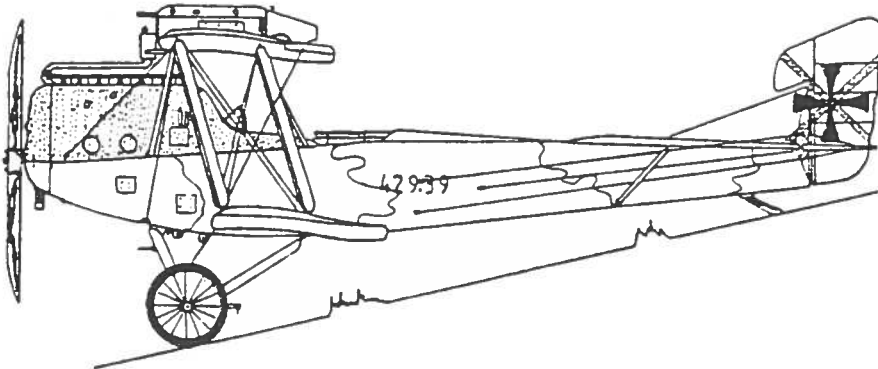
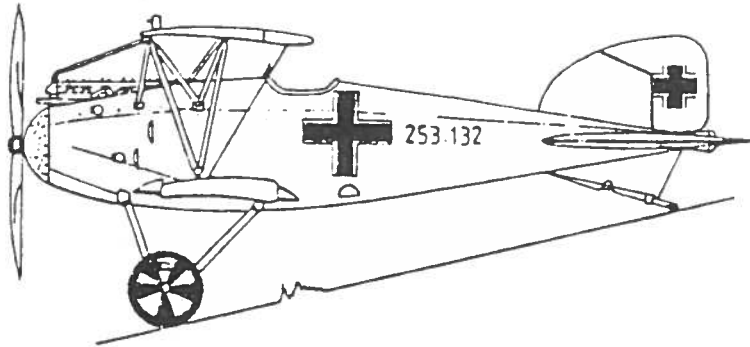
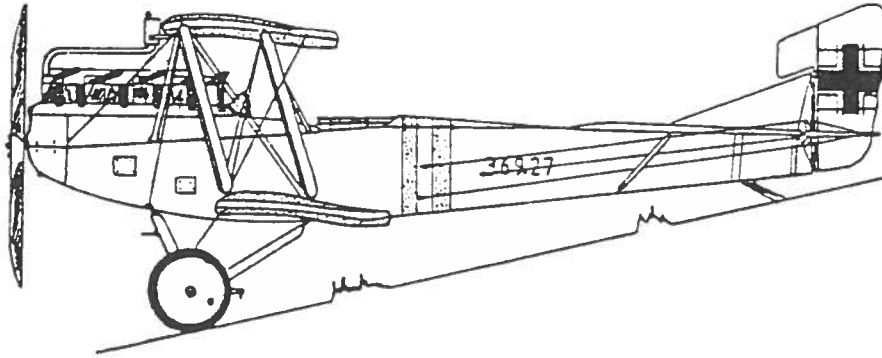
TABLE I

Pilot	Observer	a/c #	Start Time	Landing Time	Reason for Flight
Hptm. Ortner	Hptm. Yllam	29.90	8/45	9/40	Recce Rosental
Stbs.Fldw. Loschnig	Stba.Fldw. Liebisch	369.171	8/45	9/30	Recce Griffen, Kuhnndorf
Off.Stellv. Leicht	Fldw. Koschu	369.04	8/45	9/20	Bombing Kuhnndorf
Fldw. Fraueneder	Fldw. Rapp	64.36	8/45	9/20	" "
Zugsf. Hauger	Stbs.Fldw. Flatscher	369.144	8/45	9/20	" "
Obl. Kenzian	Fldw. Rapp	369.04	10/10	10/45	" "
Fldw. Kopf	Fldw. Koschu	369.144	10/10	10/45	" "
Obl. Hauger		253.132	8/45	9/30	Escort
Zgsf. Hauger		253.132	10/10	10/45	"



# Flugzeuge der 3m Fliegergruppe 2a





**DRAWINGS:** The drawings accompanying these articles show aircraft of Fliegergruppe 2a at Klagenfurt-Annabichl (except for the uncoded Hansa Brandenburg C I which was photographed at Seebach/Villach). The bands on the wing tips and rudder of 253.185 and on the wing tips and fuselage of 369.27 are red/white/red. The St. Andrew's Cross on the rudders of 429.39 and the uncoded a/c are either red, blue, or dark green. All other shading represents natural metal. The color scheme applied to the unmarked a/c is interesting: The photo shows the wing struts, vertical fin, and cowl panels to be heavily mottled; while the rudder carries a very light mottle.

#### THE AERO COMPANIES OF THE SLOVENIAN NATION IN THE BATTLES OF 1918-1919

While Slovenian flying units were deployed in the battle over the Carinthia (Karnten) in 1918-1919, unlike the Austrian Volkswehr-Fliegertruppe, not much has been published about this small group. Now, after some recent publications in Yugoslavia, a more accurate account can be given.

In December 1918, an Aero Command was established at Ljubljana (Laibach) whose sole Flying Group was stationed at Maribor (Marburg) under the command of Lt. Col. Mihajao Dorcic. At the beginning of the month, he removed eight aircraft from a Hungarian freight train passing through the great switching yards at Tezno on the south side of Maribor. Among these aircraft were the following:

Four Ufag-Brandenburg C I (369) with 230-hp Hiero motors. (The Slovenian source indicates 250 hp, which is incorrect since they did not exist.)

Two Fischamend-Brandenburg B I (79) with 145-hp Hiero motors. (The Slovenian source mentions only training aircraft with Hiero motors.)

Two MAG-Berg D I (92) with 200-hp Austro-Daimler motors.

Although the first flight took place 14.12.18, progress was so slow that regular operations did not commence until 13.3.19. In April, the Company was reorganized and four more aircraft were added to their inventory: two Ufag-Brandenburg C I (169) with 220-hp Marta-Benz motors and two fighters of an unspecified type.

At the beginning of the Slovenian attack on the Karneten on 29.4.19, two fighters were transferred to Bleiburg. The Aero Company's first aerial battle took place on 1.4.19 over Kuhndorf and involved Lt. Col. Kenzian in aircraft 253.132; Lt. Col. Kenzian was latter killed in combat. The downing of a South Slavic aircraft over Unterdrauburg on 4.5.19 is not confirmed by the Slovenian sources; it is reported, however, that a reconnaissance aircraft piloted by Sgt. Majer with observer Lt. Burazovic was hit by antiaircraft fire and crash landed behind the Slovenian lines. The observer took part in bombing attacks and aerial battles over Klagenfurt later the same day.

Slovenian sources claim that the airfield Klagenfurt-Annabichl was destroyed in bombing attacks. According to Austrian documents, not a single bomb fell on the airfield, and the only bombs mentioned are two that fell into an open field north of Sattnitz, far from Annabichl.

Up to 5.6.19 the Aero Company lists 117 sorties with 25,200 km flown. The aircraft were used for reconnaissance, defence, and leaflet dropping; but unlike their Austrian counterparts, they were not used for deep penetration of enemy territory. On 6.10.19 the Aero Company was dissolved and their aircraft handed over to the Zagreb Flying Club.

Acknowledgements: Thanks to Mr. OKoar Dr. Josef Rausch for his translation of the original article from "Spominski Zbornik", Maribor 1979, S 171.

(This article, written by wirkl. Hofrat Dr. Erwin Steinbock, first appeared in OFH NACHRICHTEN 3/81. The translation into English is by Markus Woehler SAFCH #314.)

## Aircraft of the Spanish Civil War

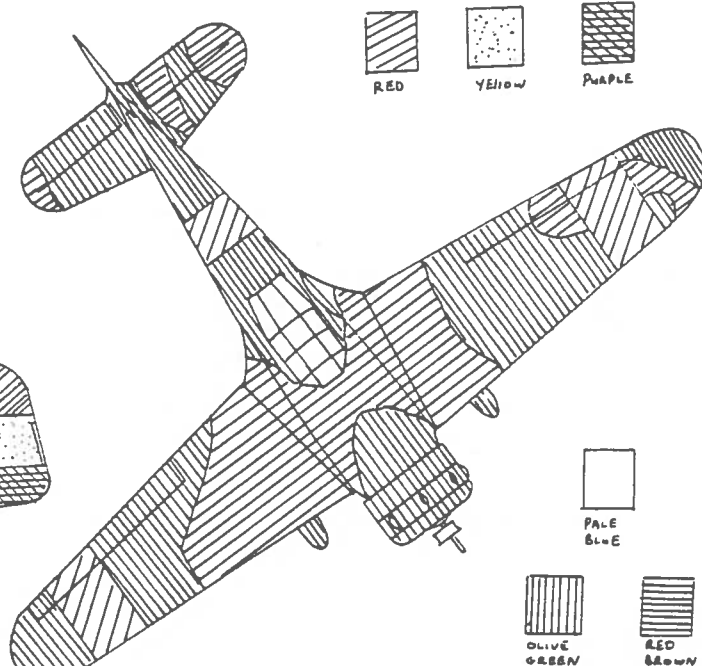
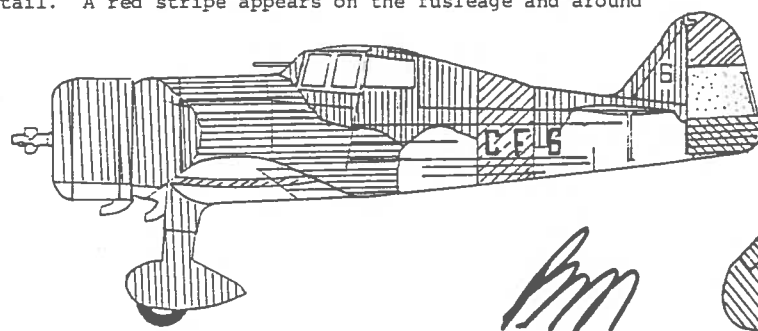
### PART 7 - FOKKER D.21

The Spanish Republican government acquired a manufacturing licence for the Fokker D-21, and started work on 50 machines. A pattern machine was also acquired at the same time. This aircraft was powered by a Bristol Mercury engine. The fuselages were completed as were the undercarriages of the Messier type, when the Nationalist forces overran the factory at El Carmoli. Most of the partially completed aircraft were destroyed by the retreating Republican forces. The pattern aircraft, however, flew carrying the markings shown. Its fate is unknown as it did not survive the war, but it is thought to have been used as a trainer in the North. One other machine, fitted with a Russian M 25 engine, is also thought to have taken to the air, but no other details are known. The undercarriages were captured intact by the Nationalists, and used by them, but for what purpose is also unknown. Any further information on any of the above would be most welcome.

The drawing shows the machine finished in olive and red brown on the upper surfaces, and pale blue on the undersides. The code is in black on the fuselage and tail. A red stripe appears on the fuselage and around

the wings. The rudder is in the usual red, yellow, and purple stripes.

Bob Massey (SAFCH #364), 108 Worrall Ave., Arnold, Nottingham, ENGLAND.



A summary of South East Air Review from December 1981 till June 1982, compiled by Ben Marselis, P.O.Box 5065 2701 GB Zoetermeer, Netherlands

Abu Dhabi/UAE: The 14 PC7's will be/are 901 to 914, c/n's 286 to 299 resp.

Belgium: Deliveries of F104G's to Turkey so far have been FX29 (c/n 9063), FX33 (9070), FX34 (9071), FX38 (9078), FX40 (9083). More are to follow.

Additional F16 w/o's are FA14 (20 Jan 82) and FA35 which collided with FA14. At least 10 of the Magisters were sold to Israel. They were MT2, MT5, MT11, MT12, MT15, MT16, MT18, MT21, MT27 and MT32.

SEAR's May issue contains a rundown on Piper Cub reseriallings.

Brunei: BO105's are AMDB123 to -128 c/n's S408 to-413.

Denmark: The C47's were WFU in 81/82. New Lynx HAS80's are S134, S142, S170, S175, S181, S187, S191 and S196 c/n's are 134, 142 etc.

Finland: New Mil 8's HS11 and HS12 were del. late 81, HS12 was w/o 13 Apr 82. MIG21Bis MG111 and MG114 were in fact delivered with serials MB111 and MB114. J35BS DK206 is an instructional airframe, following an accident in 73. Two ex Soviet AF MIG21UM's were del. in 81.

Greece: Another ex WGAF RF84F is 37685.

India: The June issue contains almost 3 pages on serials prefixed with the letter I.

Kenia: F5's are F5E 76-1677 to -1686 and F5F 76-1614 and -1615 while F5F's 81-0641 (s/n 913) and 81-0642 (s/n 914) were del. in 82. Hunters 802 (T.81) and 802 to 806 (FGA.80) were transferred to Zimbabwe (801 was w/o in 75).

Lybia: 50 Soko Galeb 2A-L aircraft were received some time ago. Seen in Nov 79 were 108, 127, 133, 134, 136, 140, 143 and 144.

Norway: Lynxes are 207, 216, 228, 232, 235 and 237 (c/n = s/n). The 16 new MFI-15 Safaris are 0803 to 0805, 0809 to 0813, 0815 to 0817 and 0836 to 0840 c/n's 15-803 etc. TF104G 66-13627 was w/o 4 Feb 81, while F104G 62-12234 was w/o 10 Sep 80.

Oman: 7 T33's are received some time ago. C130H's are 501 (ex 80-0001), 502 (82-0050) and 503 (82-0053).

Pakistan: Seen in early 81 were Pumas 1548 and 1552, U8F 37975, UH1H 70-16322 and MIL8's 0924, 0324 and 24512. Following the July SAFO, new Mirages on order

were two 5DPA's (serials 306 and 307) plus thirty 5PA's (incl. serials 429, 434, 436 and 441). It seems that Pakistan got six UH1H's ex-USA and ten AB205's ex Iran in 74/75.

Somalia: Camouflaged AB212's 60218 to 60221 were seen.

South Vietnam: The May issue contains a rundown on the H34 and the U17. U17's 71-1439, -1440 and -1442 were flown to Thailand.

Sri Lanka: The April issue contains a complete rundown on this small air arm. The MIG17's have been WFU.

Sudan: In circa 1970 Chinese-built MIG17's (=F5) as well as trainer versions (=F5T) were received. Seen in early 1972 were 158, 160, 161, 163, 164, 170 all F5 and F5T's 168, 180 to 184, 186 to 188 and 190. Also 701 to 712 are F5's in use, while 713 and 714 are F5T. MIL8's 506 and 511 were seen flying in Oct 81.

Switzerland: PC6B c/n's of V630 to V635 are 747, 749, 751, 757, 759 and 761 resp. The three JU52's A701 to A703 were WFU in Nov 81.

Taiwan: 9 RF84F's out of 24 were w/o and were therefor not returned to USAF. These nine were 11891, 11936, 117028, 27435, 28735, 28737, 28751, 28752 and 28755. F104G's 4337/17763, 4341/17768, 4342/17764 and TF104G 4149/13026 were seen in 74. F104G 64-17769 was w/o 02 Feb 81.

Zambia: The c/n of YAK-40 AF605 is 9532042.

In recent years, SEAR has published a quite comprehensive F5 production list (not Chinese F5's!).

The following is the production of fiscal year 1977:

77-0328 to 0335 c/n V1145 to V1152 are CNAF F5E

77-0336 to 0350 c/n K1004 to K1018 are CNAF F5F

77-0359 to 0361 c/n HC1001 to HC1003 are F5F for Singapore

77-0362 to 0365 c/n H1021 to H1024 are F5F for Saudi Arabia

77-0366 to 0379 c/n's not (yet) known are F5E for Singapore as are 77-1767 to 1770

77-1771 and 1772 c/n R1365 and R1366 are F5E for North Yemen as are 77-1775 and 1776 c/n's R1367 and R1368

77-1773, 1774 and 1777 c/n R1370, R1373 and R1369 resp are F5E for Jordan

77-1778 and 1779 c/n W1019 and W1020 are F5F for Jordan.

-reviews-reviews-reviews-reviews-reviews-reviews-reviews-reviews-reviews-reviews-reviews-

STAR KITS, Revista de Modelismo Miniaturismo e Historia. This new magazine from Spain is dedicated to scale modelers of all persuasions: aircraft, armor, ships, cars, figures, dioramas, etc. Printed on high-quality paper with sharp photos and true colors, this magazine sets a standard of quality unequalled by any other modeling publication known to this reviewer. The first issue consists of seventy-six 21 by 30 cm pages. To give a balanced view of the contents, I will list all articles in this issue: "Clemenceau" photos and plans for the French aircraft carrier; "Republic P-47D" photos and drawings reviewing the 1/48-scale Otaki kit; "Sturmtiger" photos, drawings, and instructions for converting the Tamiya kit; 3 pages of color drawings of uniforms (WWII Luftwaffe "Oberleutnant", Italian "Bersaglieri"; Irish officers in Spain 1935, France 1745 & 1806, Papal States 1860, & Boer War 1897; "Normandia 1944" photos, drawings, and instructions for building a figure diorama; "Stuka" photos and review of Airfix 1/32-scale Ju-87B; "Andaluca 1808" photos and history for figure vignette, "Mirage 2000" photos and review of 1/48-scale ESCI kit.

Of small air force interest is a 13 page article "El Fiat CR-32 'Chirri'" which includes extensive historical background, 13 photos, 3 side-view drawings, a page of

insignia drawings with the associated text, and a page of drawings and information for detailing a model, e.g., "El interior de la cabina se pintara en Bright Green HD-2 (referencia Humbrol), excepto el tablero de instrumentos que se pintara de un gris oscuro (Panzer Grey)."

A one year subscription to STAR KITS (11 issues) costs 2.700 Ptas in Europe or 3.100 Ptas in the Americas (as of 13 July '82, 3.100 Ptas = US \$27.60).

DE HAVILLAND CANADA DHC-3 OTTER. This book, the first to be published on the Otter, traces the development of the DHC-3 and contains a detailed production list of all 466 Otters built. It analyzes the operations of the Otter (military, government, and commercial) and describes how each operator used its aircraft. Intended as a photographic record, it has 186 photographs (64 in color). There is much hitherto unpublished data on military Otters, including full details of RCAF and US Navy service. Available from Irish Air Letter, 6 Cavendish Row, Dublin 1, IRELAND. Price (including postage and packing) is £ 8.20 sterling for orders from the UK, £ 9.29 for orders from Continental Europe, and US\$ 15.00 for North America (surface delivery) or US\$ 19.00 for air mail delivery. Karl E. Hayes (SAFCH #569), Craigaig, Killiney Hill Road, Killiney, Co. Dublin, IRELAND

# Aircraft of the West German Armed Forces

## PART 2 - ENGLISH ELECTRIC CANBERRA B.Mk.2

While most air forces prefer to use obsolescent aircraft for second-line duties, the West German Air Force did not have this option when it began from nothing in the late fifties. For the purpose of checking navigational aids, calibrating flight instruments, and for geographical survey and aerial photography, the German Defence Ministry contracted with the civil firm DLB (DeutscherLuftfahrt-Beratungsdienst) to fly demilitarized Douglas B-26 bombers of World War II vintage. Since these piston-engined aircraft were quite limited in their capability to fulfill the above mentioned tasks, the Luftwaffe decided to procure an aircraft type more up to date with the technical standards of the time and therefore better suited to these tasks. After looking over the types available from the NATO air forces, it was decided to procure the English Electric Canberra which was flying with the Royal Air Force and the Armee de l'Air in similar services and was available at a reasonable price from RAF surplus stocks.

Late in 1965, three English Electric Canberra B.Mk.2 bombers were ordered. These aircraft, having served an earlier service with 102 Squadron RAF, were flown to Marshall's of Cambridge for overhaul and modification to German standards during January and February of 1966. In the spring of 1966, these Canberras were introduced into Luftwaffe service and put at the disposal of the Luftwaffe's Test Center Erprobungsstelle 61 (ErpSt 61). Since the training of Luftwaffe pilots to fly the Canberras would have been too expensive, the Rheinflugzeugbau GmbH (RFB) at Monchen-Gladbach was employed to operate and maintain the Canberras. RFB took under contract some former RAF Canberra pilots, while the other crew members came from the Federal Office for Military Technology and Procurement (Bundesamt fur Wehrtechnik und Beschaffung, abbreviated BWB).

While in service with ErpSt 61, the Canberras were initially registered YA+151, YA+152, and YA+153. With the change in the Luftwaffe's serial system, which came into effect in February 1968, the YA registrations were changed to an all-digit code: 00+01, 00+02, and 00+03.

In 1969, ErpSt 61 procured two HFB Hansa-Jets to take over the testing of electronic equipment and the task of checking navigational aids was transferred to the Communications Instruction and Test Regiment 61 (Fernmelde-Lehr- und Versuchs-regiment 61, abbreviated FmLVsuRgt 61) and the Air Traffic Office of the West German Armed Forces (Amt fur Flugsicherung der Bunderwehr, abbreviated AFSBw) in cooperation with the civil Federal Office of Air Traffic Control (Bundesanstalt fur Flugsicherung, abbreviated BSF).

At this time, the Canberras were re-registered D-9566, D-9567, and D-9569, and had special radio and navigational equipment installed to allow them to operate in both military and civil air traffic. Two of the machines (D-9566 and D-9567) were equipped with three vertical cameras each, two in the bomb bay and the third in the camera bay, and they were transferred to the Military Geographic Office (Militar-geographisches Amt der Bunderwehr, abbreviated MilGeoA). On 28 July 1971, D-9569 went to the German Research and Test Establishment for Aviation and Astronautics (Deutsche Forschungs- und Versuchsanstalt fur Luft- und Raumfahrt e.V., abbreviated DFVLR)

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IMPORTED AVIATION BOOK CATALOG 1982: Jim Haycraft (SAFCH #192) is now importing aviation books from Europe. His stated goal is to "provide the serious modeler with a unique source of the best and newest aviation literature from Europe's leading publishers". This, as the catalogue shows, he does admirably well. Included are books from Italy (e.g., "Spagna 1936-1939, L'Aviazione Legionaria" \$6.95), France (e.g., "L'Armee de l'Air en Indochine - Transport et Bombardement" \$13.50), Finland (e.g., Air-

at Oberpfaffenhofen near Munich.

The MilGeoA used its Canberras for cartographic survey, aerial photography and reconnaissance, and an occasional air-target task. The Canberra assigned to the DFVLR were used to evaluate control characteristics under extreme flight conditions.

In 1975, the D-95.. registration scheme was replaced by an all-digit scheme, and the Canberras were re-registered 99+34, 99+35, and 99+36. At this same time, the DFVLR turned over its Canberra to the MilGeoA and this aircraft was also fitted with three vertical cameras.

Today, all three Canberras are still in service with the MilGeoA and are stationed at Cologne-Wahn. They have served their assigned tasks very well and no proposal to replace them have been made.

### Camouflage and Markings

Fourteen years of service have brought various alterations to the Canberra's color scheme. At delivery and for the first years of service these aircraft remained in natural metal. The transfer to civil and semi-civil offices in 1971 resulted in the painting of the fuselage nose, rear fuselage, engine intakes, and tip tanks with dayglo orange (German RAL 2005, equivalent to FS595A 12199). A year later, the whole aircraft received a dayglo finish.

During the time the YA+... , 00+.. 99+.. registration were worn, national markings (iron crosses) were carried in the usual six positions. No crosses were carried when the D-95.. registration was worn. The German national fin flash (black/red/gold) was always carried on the fin, but with dimensions and positioning differing with the different color schemes.

Each aircraft was identified by a legend below the fin flash which for the YA+... and 00+.. registrations read

CANBERRA B-MK-2  
WERK-NR. (c/n)

and the the D-95.. and 99+.. registrations read

CANBERRA B-MK-2-(c/n)

While with the DFVLR, unit badges were at first worn on both sides of the nose, later changed to both sides of the fin just below the fin flash. While with the MilGeoA, unit badges were carried on the starboard side of the nose.

The registrations were always in black with thin white outlines.

c/n	6644	6651	6652
RAF s/n	WK130	WK137	WK138
WGAF 1966-68	YA+151	YA+152	YA+153
WGAF 1968-70	00+01	00+02	00+03
BWB-ML 1970-75	D-9569	D-9566	D-9567
BWB-ML 75-	99+36	99+34	99+35

Paul Bezouska (SAFCH #34), Bachgasse 96, D-6944 Hemsbach, WEST GERMANY.

craft of the Finnish Air Force, Part 1 1919-1938 and Part 2 1939-1972 \$12.50 each), Germany (e.g., "Das Waffen Arsenal #71, Fremde Vogel Unterm Balkenkreuz [Captured A/C] \$5.00), and England (e.g., "Latin American Military Aircraft \$17.95). Catalogues are available for \$1.00 each. "which will be refunded with the first order". Write to Air Enterprise Publications, PO Box 7745, Newark, DE 19711.

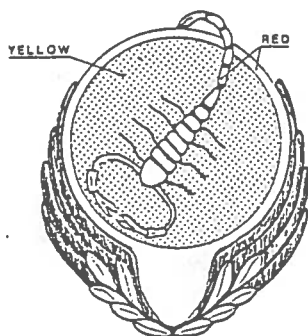
# ISRAELI DEFENCE FORCE AIR FORCE SERIALS

In preparation for a book on modelling the Israeli Air Force, I have noted all the serials available from photographs. (I have not used drawings because one cannot be certain of their accuracy; no disrespect intended to their artists and authors.) I would like to hear from anyone who can add to this list, enclosing proof. I am eager to expand my own collection of pics and would like to correspond with anyone who may be able to help.

SA.321K Super Frelon: 05, 009, 015, 18, 125. SE.3130 Alouette 2: 03, 06. CM-170 Magister: 16, 17, 038, 117, 125, 127, 155, 158, 167, 201, 209, 212, 214, 219, 227, 242, 280, 287, 291. Auster AOP.5: 13-X. Avia C.210: 4, 107.T, 120.T. Anson Mk.1: 02. B.80 Queen Air: 102, 108. AH-1G Hueycobra: 324, 326. AH-1S Hueycobra: 335. UH-1D Iroquois: 17, 046, 981. Bell 47C: 08. Bell 206A: 101, 125. Bell 212: 013, 025, 034, 057, 070. Boeing B-17G: 1601, 1602. KC-97 & Boeing 337: FOG, FPG, FPN-039, FPS, FPV, FPX-98, FPY, FPZ. Boeing 707: JYA-006, 004. PT-17 Kaydet: 06, 22, 34. BN-2A Islander: 04. Sabre Mk.6: 6032. U-206C Super Skywagon: 31, 62. C-46A Commando: 173. MD.450 Ouragan: 29, 48, 50, 64, 080, 383, 445, 5641, 5644. Mirage 3BJ: 787. Mirage 3CJ 51, 52, 82, 103, 159, 176, 259, 409, 507, 620, 703, 719, 732, 741, 743, 752, 753, 758, 764, 771, 775, 776, 778, 780, 851, 942, 951. Mystere 4A: 10, 11, 32, 33, 34, 35, 36, 47, 52, 60, 62, 63, 93, 110, 193, 276, 301, 630, 691, 6646, 6652. Super Mystere B.2: 18, 705, 708, 909. DH.84A Dragon Rapide: 02, 002. Mosquito FB.6: 63, 2103, 2105, 2114. Mosquito B.9: 35. Mosquito TR.33: 3185, 3186. Dornier Do 27A: 15, 019,

037, 205. Do 28B Skyservant: 026. C-47 Dakota: FAK, FNN-16, 09, 017, 032. S-11 Instructor: 005, 33, 7119. F-16A Fighting Falcon: 008, 100, 105, 107, 111, 112, 117, 135, 138, 257. F-16B Fighting Falcon: 001, 003, 006, 015. Meteor T.7: 1, 17, 21, 2163, FNB. Meteor F.8: 04, 05, 09, 10, 11, 106, 2176. Meteor FR.9: 212. Meteor NF.13: FNB, 57, 157. E-2C Hawkeye: 946. 500M-D Defender: 214. Arava 201: IAB. Kfir C.1: 709, 710, 712, 716, 718, 724, 725, 727, 731, 743, 749, 750, 786, 787. Kfir C.2: 630, 711, 714, 719, 730, 755, 779, 805, 837, 855, 860, 864, 877, 879, 880, 882, 891, 967, 987. Kfir C.2T: 303. Nesher: 534. Sea Scan Westland: CJC. Westland 1123: JYG. C-130E/H Hercules: FBB-06, FBQ-420, FBS-427, FBT-435, FBU, FBW-436, FBX-429, 319. A-4E Skyhawk: 209, 215, 218, 685, 725, 882, 885. A-4H Skyhawk: 28, 228, 272, 284, 291, 358, 363, 369, 379, 605, 704, 715, 723, 725, 796, 890. A-4N Skyhawk: 322, 346, 377, 392. TA-4H Skyhawk: 542, 547, 725. F-4E Phantom: 110, 114, 132, 141, 147, 153, 167, 175, 183, 187, 210, 170, 304, 610, 620, 634, 689, 693. RF-4E Phantom: 198. F-15E Eagle: 620, 622, 646, 659, 672, 686, 692, 695. MiG-21F Fishbed-C: 007. UC-64A Norseman: 0802. N.2501D Noratlas: FAD, FAE-045, FAJ, FAP, FAQ, FAT, FAU, FAW. T-6 Texan/Harvard: 001, 2, 3, 1105, 1113, 1122. F-51D Mustang: 19, 39, 41, 42, 54, 146. PC-6A Turbo-Porter: 02. L-21C Super Cub: 71, 096. RC-3 Seabee: 61.3. Sikorsky S-65/CH-53D: 33, 135, 536, 552, 945, 953, 957, 960, 961. Sikorsky S-58B: 07, 11, N9F. Sud Aviation Vautour: 08, 17, 70, 109, 116, 126, 162, 226, 421. Spitfire LF.9E: 10, 17, 18, 24, 57, 105. Spitfire Mk.16E: 16, 19. Model C: 0430.

## ISRAELI DEFENCE FORCE AIR FORCE BADGES



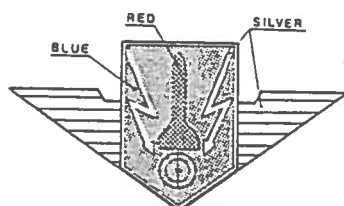
SQUADRON 107  
1936-1937



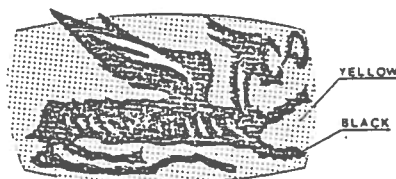
MAMAL (VOLUNTEERS FROM ABROAD)



TECHNICAL SCHOOL  
(?)



BADGE WORN BY PILOTS WHO  
HAVE "KILLED" A S.A.M.

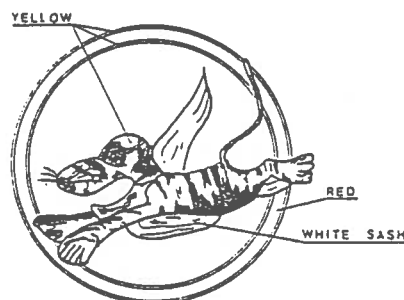


SON'A BADGE  
OURAGAN, SKYHAWK.

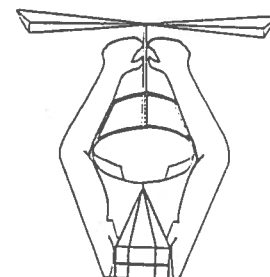
DRAWINGS BY E. HOURANT



FLIGHT ENGINEER(?)

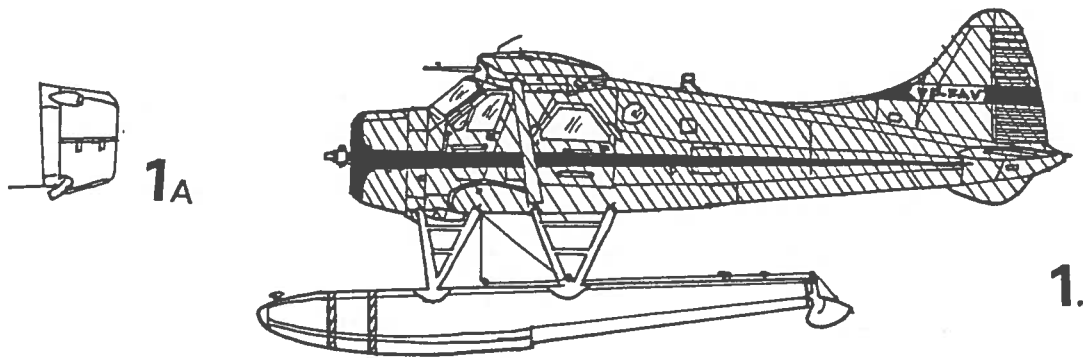


TRANSPORT WING(?)



HELICOPTER  
PILOT

# FALKLANDS BEAVER



Before the battle of the Falklands, this Beaver with another (VP-FAT) conducted the majority of commercial flying within the Falklands. Both were floatplanes and carried the same colour scheme. This Beaver can be made from the Airfix kit without modifications.

Colour scheme: Overall gloss red with aluminum painted floats and upper surface of the wings. Gloss red: stripes on floats and 'VP-FAV' (shown black for clarity).

Aluminum paint: float struts. Black: nose band, fuselage flash, fin and rudder stripes, propeller blades (with yellow tips), and propeller hub.

Fig. 1a shows the starboard side of the cowling.

Reference: AIRCRAFT, July 1982.

Mike Mirkovic (SAFCH #465), 11/32 Curlewis St., Bondi, NSW 2026, AUSTRALIA

# TNI-AU PART 4

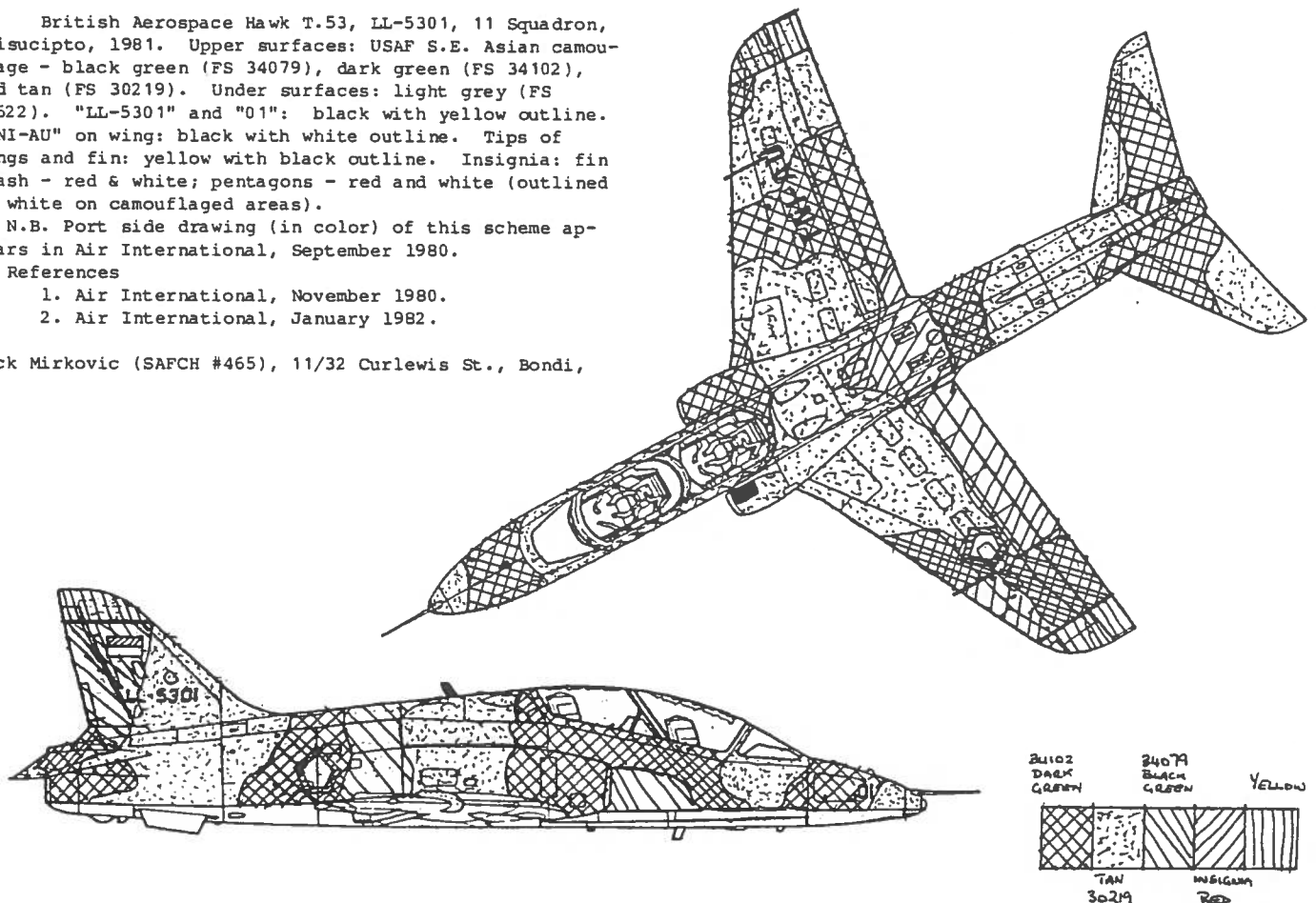
British Aerospace Hawk T.53, LL-5301, 11 Squadron, Adisucipto, 1981. Upper surfaces: USAF S.E. Asian camouflage - black green (FS 34079), dark green (FS 34102), and tan (FS 30219). Under surfaces: light grey (FS 36622). "LL-5301" and "01": black with yellow outline. "TNI-AU" on wing: black with white outline. Tips of wings and fin: yellow with black outline. Insignia: fin flash - red & white; pentagons - red and white (outlined in white on camouflaged areas).

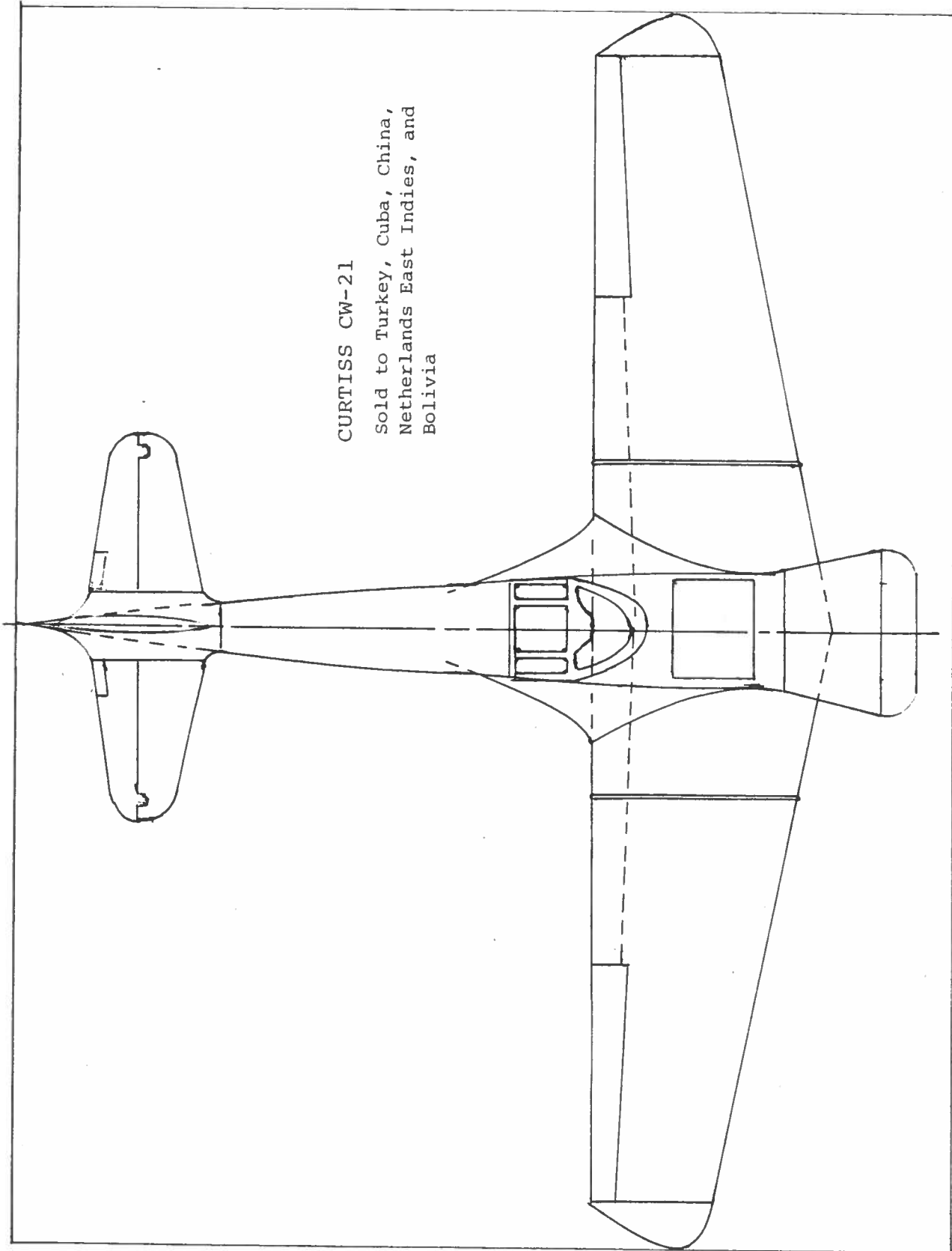
N.B. Port side drawing (in color) of this scheme appears in Air International, September 1980.

## References

1. Air International, November 1980.
2. Air International, January 1982.

Mick Mirkovic (SAFCH #465), 11/32 Curlewis St., Bondi,

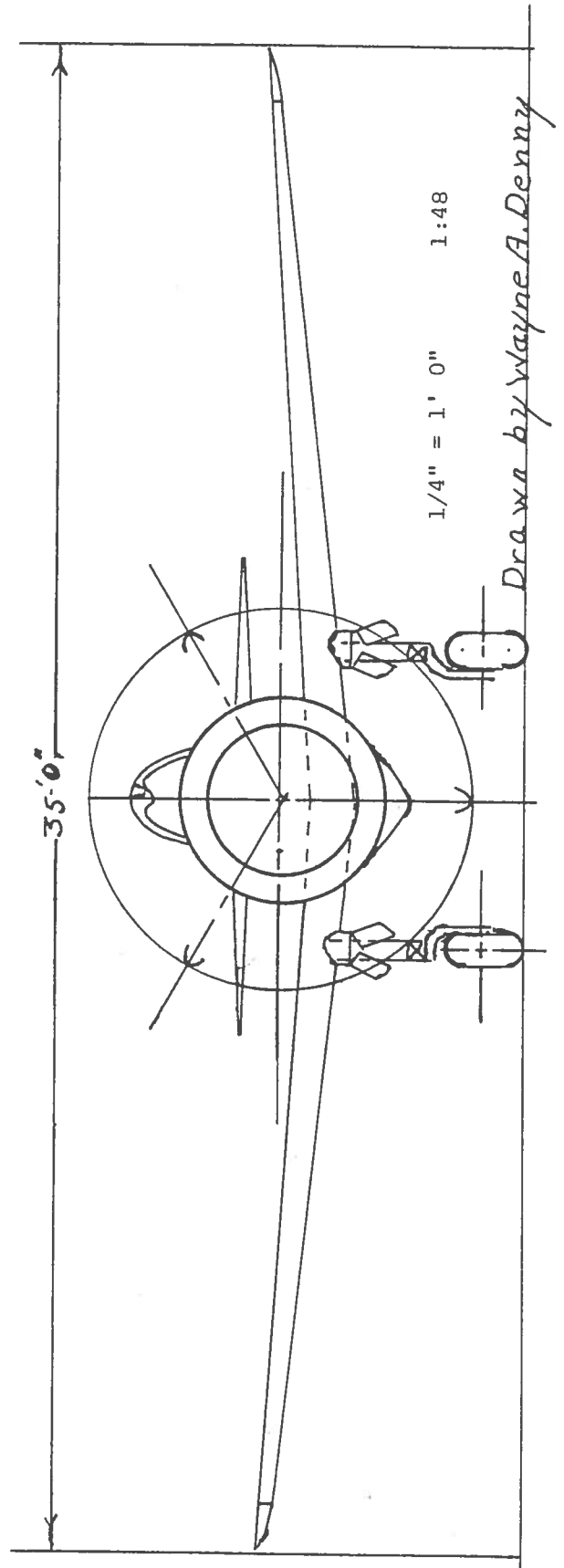
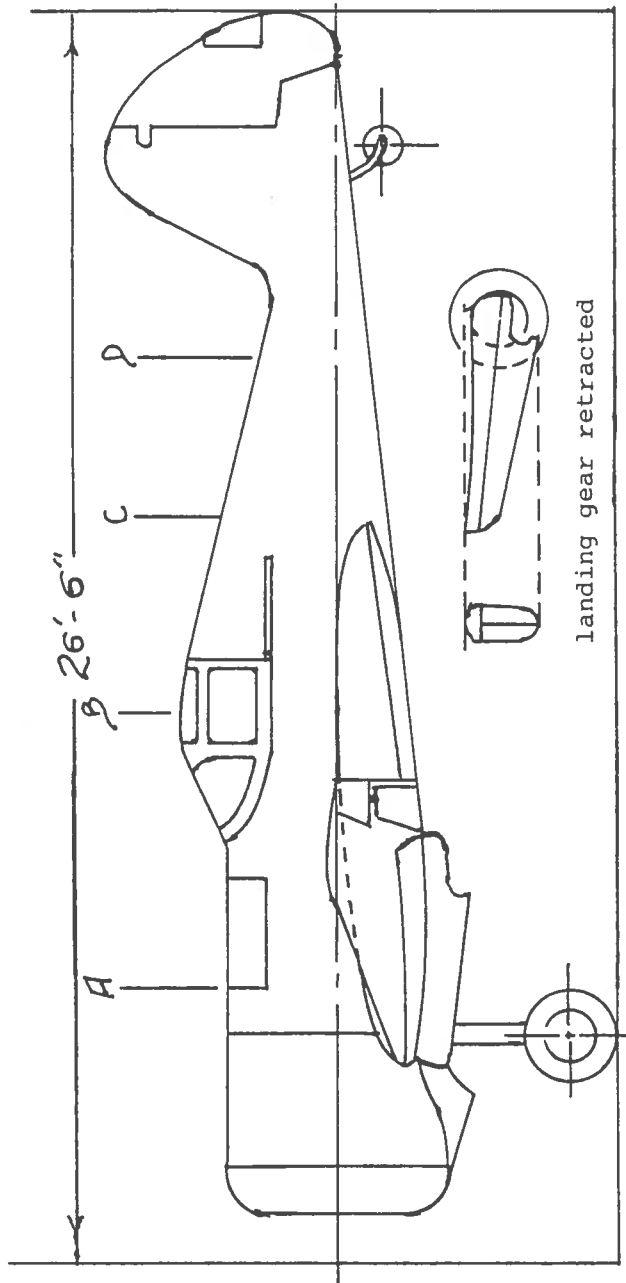
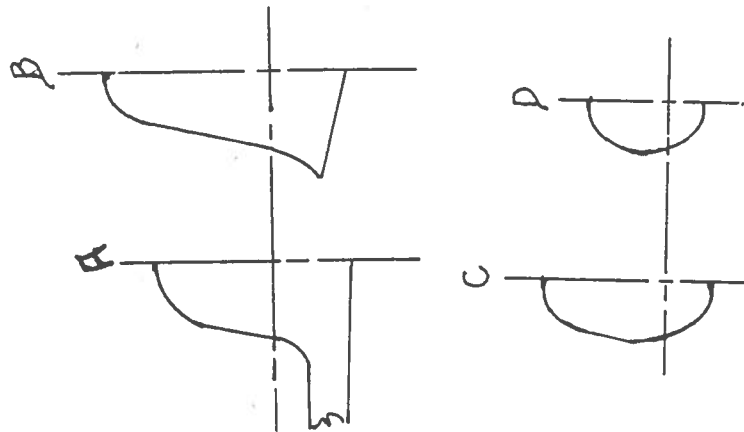


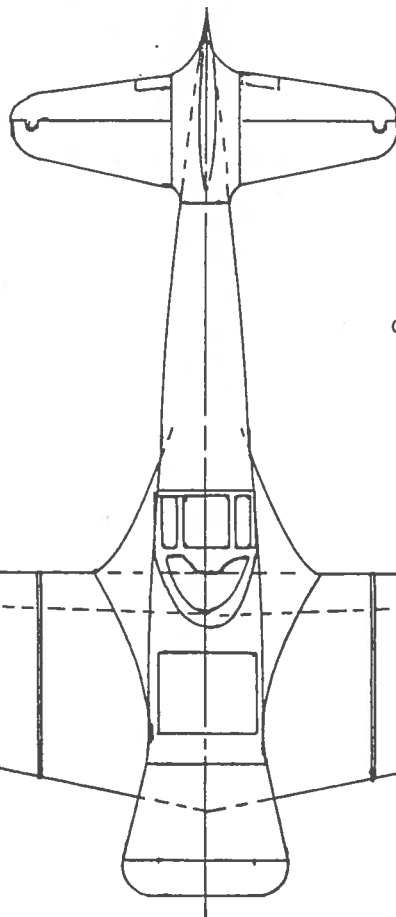


CURTISS CW-21

Sold to Turkey, Cuba, China,  
Netherlands East Indies, and  
Bolivia

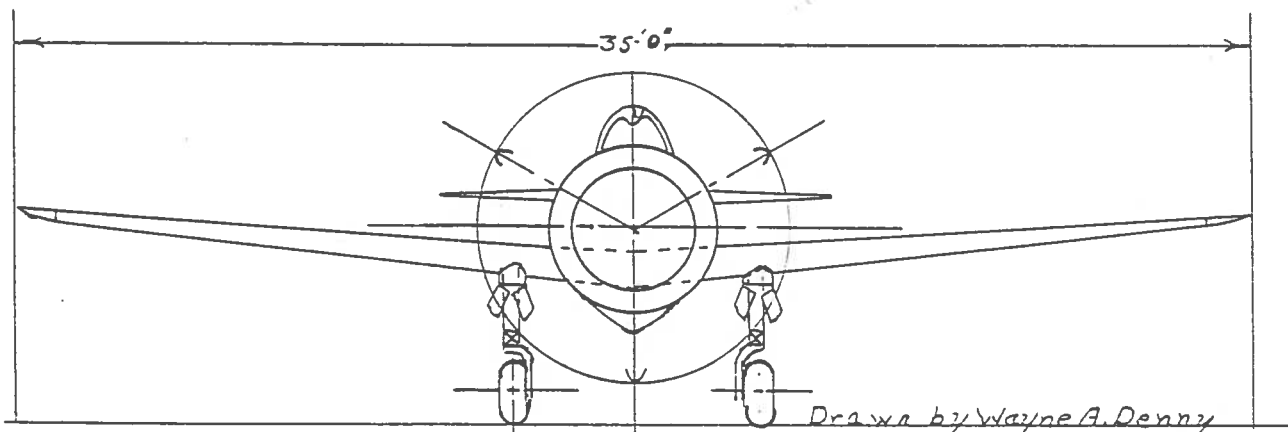
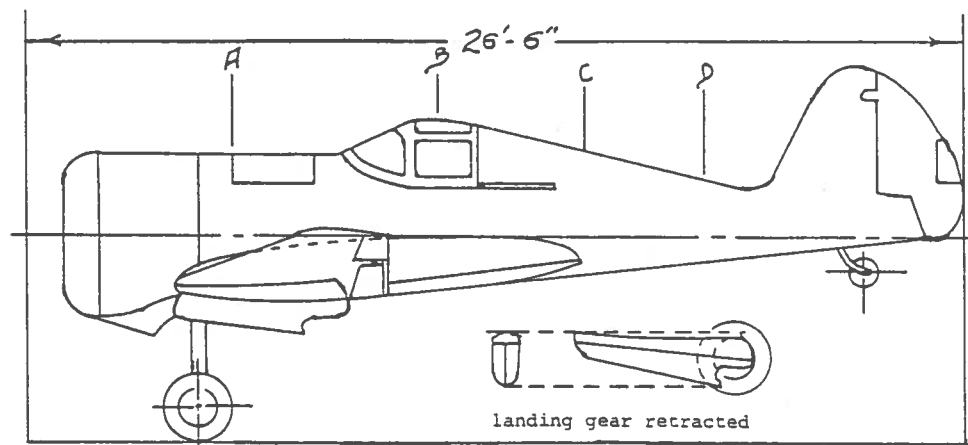
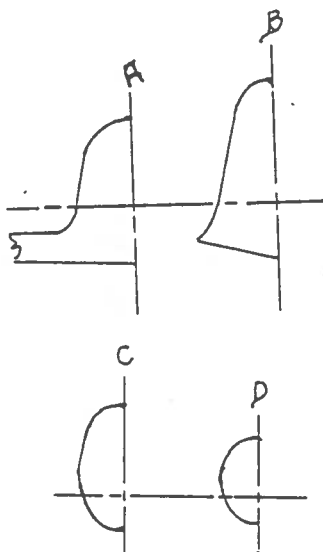






# CURTISS CW-21

Sold to Turkey, Cuba, China,  
Netherlands East Indies, and  
Bolivia



Drawn by Wayne A. Denny